

HANDBOOKS PREPARED UNDER THE DIRECTION OF THE
HISTORICAL SECTION OF THE FOREIGN OFFICE.—No. 136

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DUTCH GUIANA

LONDON:
PUBLISHED BY H.M. STATIONERY OFFICE

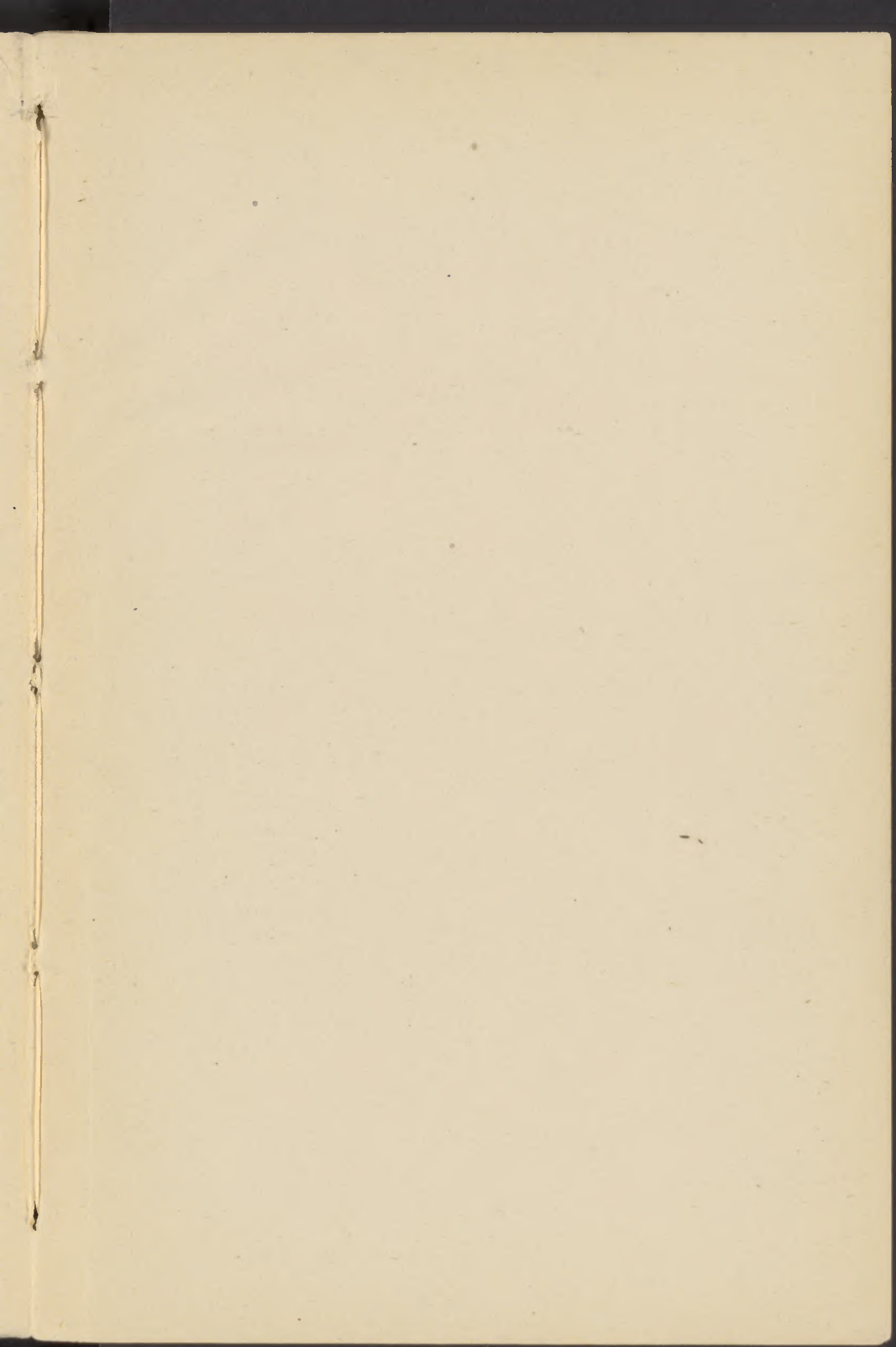
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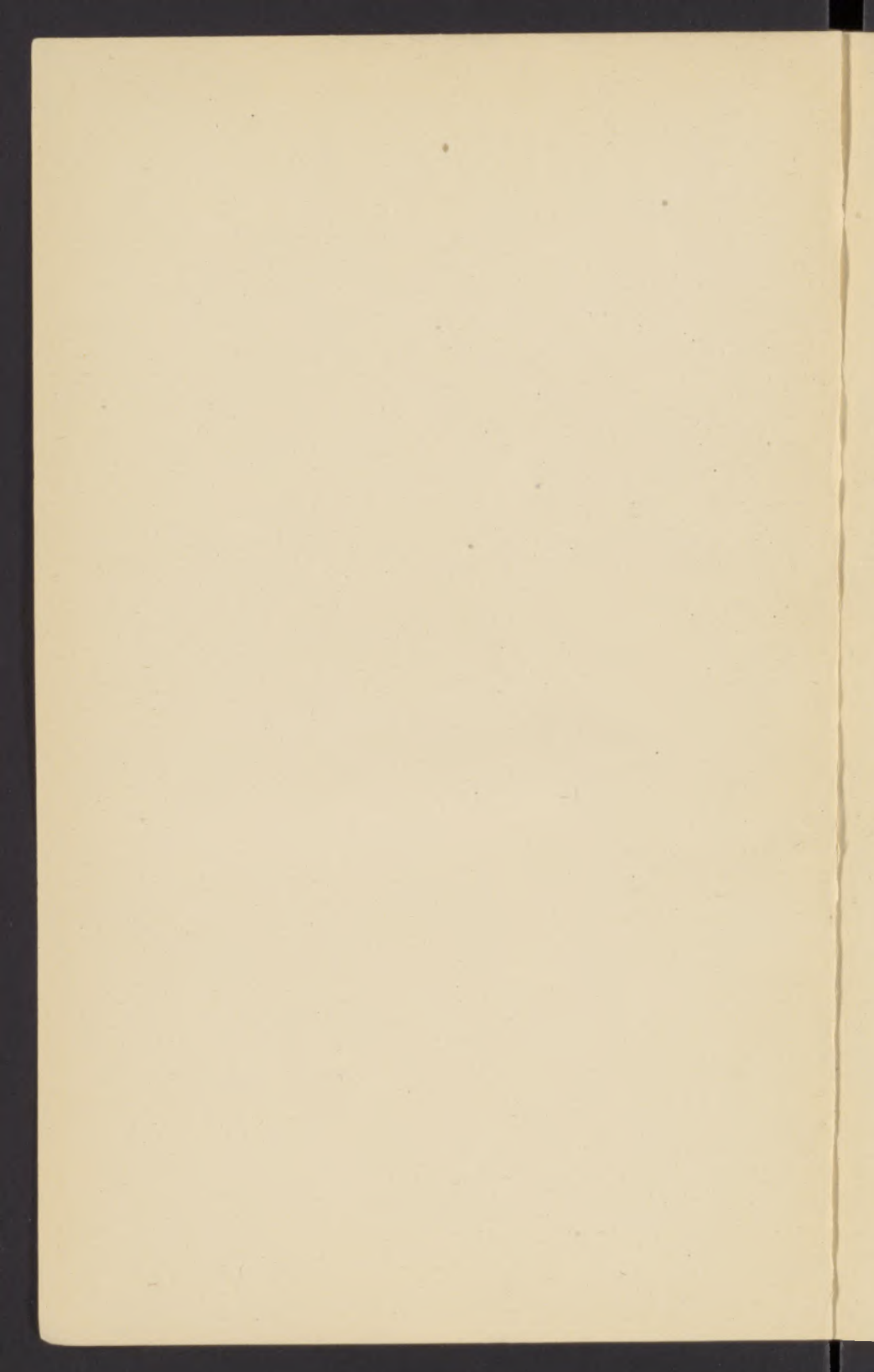


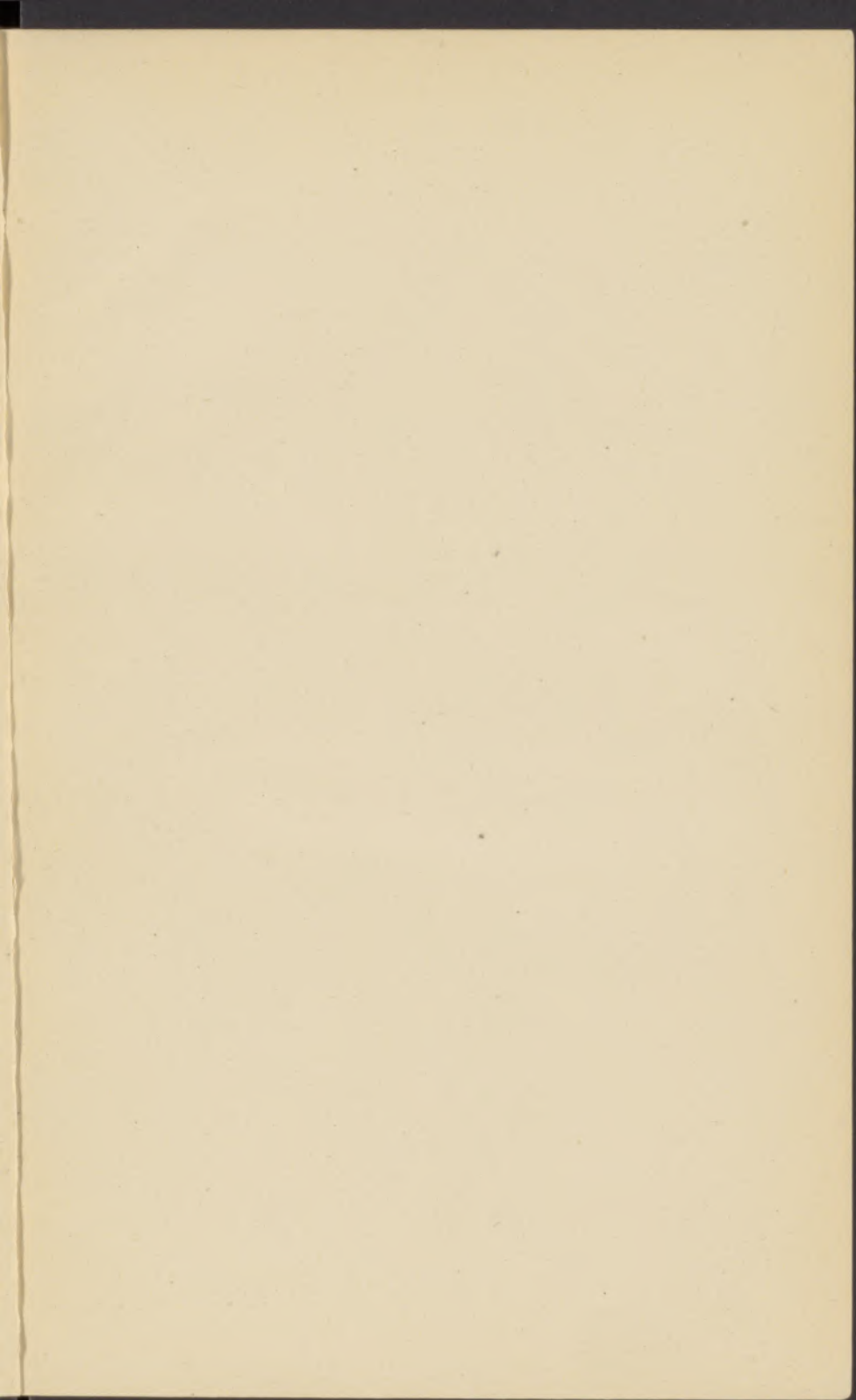


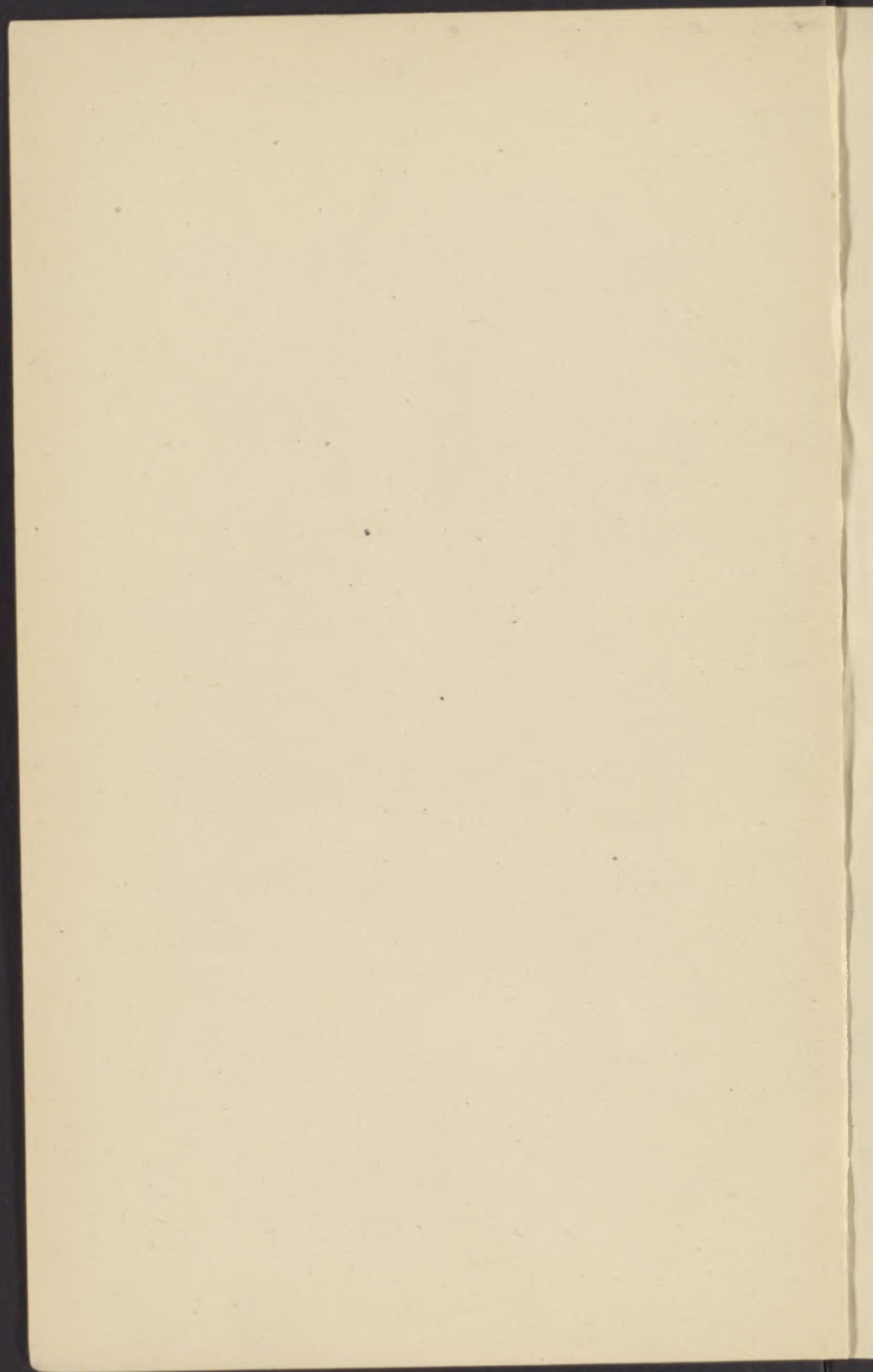
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Now that the Conference has nearly completed its task, the Foreign Office, in response to numerous enquiries and requests, has decided to issue the books for public use, believing that they will be useful to students of history, politics, economics and foreign affairs, to publicists generally and to business men and travellers. It is hardly necessary to say that some of the subjects dealt with in the series have not in fact come under discussion at the Peace Conference; but, as the books treating of them contain valuable information, it has been thought advisable to include them.

It must be understood that, although the series of volumes was prepared under the authority, and is now issued with the sanction, of the Foreign Office, that Office is not to be regarded as guaranteeing the accuracy of every statement which they contain or as identifying itself with all the opinions expressed in the several volumes; the books were not prepared in the Foreign Office itself, but are in the nature of information provided for the Foreign Office and the British Delegation.

The books are now published, with a few exceptions, substantially as they were issued for the use of the Delegates. No attempt has been made to bring them up to date, for, in the first place, such a process would have entailed a great loss of time and a prohibitive expense; and, in the second, the political and other conditions of a great part of Europe and of the Nearer and Middle East are still unsettled and in such a state of flux that any attempt to describe them would have been incorrect or misleading. The books are therefore to be taken as describing, in general, *ante-bellum* conditions, though in a few cases, where it seemed specially desirable, the account has been brought down to a later date.

G. W. PROTHERO,

General Editor and formerly

January 1920.

Director of the Historical Section.

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I. GEOGRAPHY PHYSICAL AND POLITICAL

(1) POSITION AND FRONTIERS

DUTCH Guiana, or Surinam, is situated on the north-east coast of South America, between British Guiana on the west and French Guiana on the east, facing the Atlantic Ocean on the north. It lies between $1^{\circ} 55'$ and $6^{\circ} 5'$ north latitude, and between 54° and $57^{\circ} 45'$ west longitude, and occupies an area of 46,060 square miles.

The River Corentyne, on the west, forms the boundary between Dutch and British Guiana for the whole of its course of about 250 miles. On the east the Marowynne River, with its tributary the Awa (called the Itany in its upper reaches), forms the boundary between French and Dutch Guiana, while the Tumuc Humac range on the south forms the natural division between Dutch Guiana and Brazil.

(2) SURFACE, COAST, AND RIVER SYSTEM

Surface

The configuration of Dutch Guiana is similar in its general outlines to that of British and French Guiana. Geographically the three Guianas constitute a region distinct from the rest of the mainland, consisting of an isolated mass of granites and other similar rocks. With the exception of the Tumuc Humac on the southern boundary of the colony, there are no continuous mountain chains.

The country is divided into four clearly-marked natural regions:—

(i) A strip of alluvial land, stretching along the coast for about 3 miles inland, which lies partly below

sea-level, and is protected by natural palisades of courida and mangrove. This region is inhabited and cultivated, and shows a tendency to increase in area, owing to the deposits of alluvial and other matter brought down by the numerous rivers. Near the coast are isolated masses of gneiss, schists, or sandstone, ranging in height from 300 ft. to 720 ft. Formerly washed by the sea, they are now surrounded by alluvial matter brought down by the rivers and deposited in coastal waters. This forms the fringe of the great forest region which extends over the larger part of the country.

(ii) The forest region, much of which is impassable and has never been fully explored. As the land rises and becomes more hilly the rivers which intersect the forests are obstructed by rocks. In the river bottoms and swamps the soil is rich and the vegetation dense and varied, but it becomes much thinner on the higher slopes.

(iii) The sandstone region is intersected by streams of all sizes, and possesses an abundance of springs. The trees are not so tall as those of the true forest, and there are open spaces with grass and flowering plants.

(iv) The savannahs of the interior present a series of transitions from wooded to grassy country, and their undulating surface is broken by isolated granite rocks, blocks of conglomerate, and reddish masses of quartz and clay. In most of the savannahs trees are few, and the vegetation is chiefly confined to the lower levels.

Coast

The coast-line extends approximately east and west for about 240 miles in gentle curves, which continually change in shape and direction. A characteristic feature is the distinct double shore line, due to the new beaches which are formed by the alluvial deposits from the rivers. Sandbanks frequently extend far out to sea.

The principal harbour is that of Paramaribo (the capital). Other coast towns are New Nickerie,

Coronie, and Albina, which are only connected with each other, and with Paramaribo, by sea.

River System

The five chief rivers, all of which flow from south to north, are the Corentyne, Coppename, Saramacca, Surinam, and Marowyne or Maroni.

The *Corentyne* (*Corantijne*), which has a length of 450 miles, rises in the Curucuri Mountains, and is formed by the junction of the Curuni and New rivers. Below this confluence, the Corentyne descends to the northern plains through a series of magnificent falls and rapids, the chief of which are the Cataracts of Wonotobo. From this point, 175 miles from the sea, the Corentyne runs its course without interruption. Close to its mouth the Corentyne is joined by the coastal stream of the Nickerie, which has an east-to-west course through alluvial plains.

The *Coppename* in its upper reaches flows northwards, but after its junction with a transverse coast stream continues its course to the sea eastwards. Between it and the Nickerie winds a channel, whose sluggish current sets alternately west or east according to the volume of water descending from the interior. A labyrinth of natural canals has thus been formed, and these have been embanked and improved so as to serve as highways. The *Saramacca* lies to the east of the Coppename, and falls into the same estuary. The *Surinam* flows in a generally northerly direction, reaching the sea a short distance from Paramaribo. At Fort Amsterdam, just below Paramaribo, it is joined by the Commewyne (*Commewijne*), here almost equal to the Surinam in size and volume. Farther to the east, the Commewyne is joined by the Cottica, and the Cottica by the Coermoribo.

The head-waters of the *Marowyne* (*Marowijne*, *Maroni*), which has a total length of 390 miles, cover a stretch of nearly 200 miles on the northern slopes of the

Tumuc Humac Mountains between the basins of the Corentyne and the Oyapok. Its upper course is formed by the junction of the Awa (Lawa or Itany) and the Tapanahoni, and in its further descent it is uninterrupted by cataracts of any size. At its mouth there is a bar which has a depth of 15 or 16 ft., even at low water.

It will therefore be seen that along the whole of the sea-board of Dutch Guiana there exists an intricate and continuous system of waterways, stretching from the Corentyne on the western boundary, through the Nickerie, the Coppename, the Sommelsdijk Canal, the Commewyne, the Cottica, the Coermoribo, and the Wana, as far as the Marowyne River, on the east.

All the rivers of Dutch Guiana rise enormously in the rainy season.

(3) CLIMATE

The controlling factors of the Guiana climate are its situation within the tropical zone close to the Equator, the steadiness and frequency of the winds, and the influence of the sea. The north-east trade winds blow for the greater part of the year, beginning in December, and the south-east trades for a shorter period, thus ensuring a remarkable uniformity of climate.

Over the whole region the temperature rarely rises above 80° F. in the shade or falls below 74° F. at night. It is slightly lower in the rainy season, but the mean average temperature for the year is about 80° to 81° F. The atmosphere is nearly always moist. On the Tumuc Humac Mountains the atmosphere is drier than in other parts of the colony, and at night the temperature has been known to fall to 16° F.

The rainfall varies from 60 to 80 in. inland, but on the coast the mean exceeds 100 in., and 160 in. have been recorded. There are two unequal rainy seasons. In the interior, the wettest period is from January to July, at Paramaribo from December to the end of

January, and again from March to July, but no single month can be described as really dry.

(4) SANITARY CONDITIONS

Owing to the general ignorance of ordinary sanitary precautions, and also on account of the uncertain supply of reliable drinking water, the state of public health in Dutch Guiana is far from satisfactory.

The chief diseases are leprosy, tuberculosis, ankylostomiasis, filaria, elephantiasis, and tropical fevers, and diseases of the eye are especially prevalent in the dry season. Yellow fever is not endemic, but is occasionally introduced from abroad; and dysentery exists, although it is less prevalent than in many tropical countries.

Other and less frequent diseases are ringworm, tetanus, blackwater fever, and lota, a skin disease which is probably of parasitic origin.

(5) RACE AND LANGUAGE

Race

The population of Dutch Guiana consists of native Indians, European and Jewish settlers, negroes, Asiatics, African and European half-breeds, and a small but not negligible sprinkling of fugitives from the penal settlement of French Guiana.

The Ojanas, Upuruis, and Trios are the principal Indian tribes, but they are of little importance, either as regards numbers or economic capacity. The small handful of Europeans represents partly the descendants of the early settlers and partly the trade element.

The Jews in Surinam are neither numerous nor prosperous, but they supply some of the professional men, such as doctors, lawyers, and judges. The Jews are of two distinct types: (1) the Dutch-Portuguese community, said to be the oldest permanent Jewish

settlement on American soil; (2) the purely Dutch community, which is decreasing in numbers.

Negroes were imported from Africa at an early date, to the number of about 300,000, till the abolition of slavery. Since this time the Guiana plantations have all suffered severely from want of labour. The negroes of Surinam are of two classes: first, those descended from the slaves who escaped into the forests when the colony was handed over by the English to the Dutch in 1667. These (about 8,000 in number) are known as Bush negroes (*Boschnegers*), and trade peacefully with the white settlers, but are on bad terms with the native Indians. Secondly, there are those slaves, or their descendants, who continued after the emancipation (in 1863) to live as free men in the towns and plantations.

The East Indians are imported under a five years' contract, by the end of which time they are acclimatised, and have a much higher productive value than on their arrival. The Javanese number nearly 10,000, and are by some authorities preferred to the British Indians; they generally renew their contracts.

The Chinese are not numerous in Surinam, and are not likely to prove an important element in the future. The mixed races are of all shades between black and white. *Bovianders*, originating from Dutch fathers and Indian mothers, form a few communities in the west of the colony.

Language

Dutch is the official language of Surinam, but nearly everyone, white or coloured, understands and speaks English. The negro English is a curious mixture of English, African, Dutch, and Portuguese words, and in 1886 it was estimated that 40,000 people used this medium of communication.

(6) POPULATION

Distribution

In 1917 the population was estimated at 91,629, exclusive of Bush negroes and native Indians, whose numbers can only be roughly estimated. The population is very unevenly distributed, more than one-third being in Paramaribo. The inhabitants live mainly on a narrow strip of sea-board, some 220 miles in length, with a depth of not over 10 miles, and generally much less.

Towns

Paramaribo is the only large town in Dutch Guiana; its population is 37,085. Other towns are New Nickerie and Albina, the former on the south bank of the Nickerie River, a few miles above its confluence with the Corentyne, the latter on the Marowyne River, on the eastern boundary of the colony.

Movement

There has been an increase in population since 1880, partly owing to a higher birth-rate. From 1850 to 1884 there were nearly 300 per annum more deaths than births, whereas from 1885 to 1914 there was an average surplus of births amounting to 440 a year, and in 1915 there were about 1,400 (nearly double) more births than deaths. The average death-rate is about 22 per 1,000, taking the whole population together without distinction of race. There is a strong presumption in favour of the fact that the negroes have decreased in numbers since the emancipation.

There is practically no emigration, except for the drift of native tribes across the frontiers, and the repatriation of some of the coolies, which amounts to only a few hundred a year. By a charter of 1682 the West India Company was obliged to import annually as many slaves from Africa as the colony required, but

this came to an end when, in 1807, Great Britain abolished the slave trade in this part of the world. From 1853 to 1869 several hundreds of Chinese were imported annually, but Chinese immigration has now entirely stopped.

The Javanese have been coming over since 1891. British Indians were first regularly contracted for in 1893, and since that date 17,000 have arrived, of whom about 6,000 have become permanent settlers. Early in 1916 the Indian Government prohibited this emigration, but a transition period of five years is allowed, so that colonies supplied by British Indian labour may find substitutes elsewhere.

II. POLITICAL HISTORY

CHRONOLOGICAL SUMMARY

- 1674 Withdrawal of English settlers.
- 1682 Society of Surinam formed.
- 1683 Sommelsdijk becomes Governor.
- 1688 Death of Sommelsdijk.
- 1689 Du Casse attacks the colony.
- 1712 De Cassard attacks the colony.
- 1772 Bush negroes pacified after a prolonged struggle.
- 1780 War between Great Britain and Holland.
- 1791 Suppression of West India Company and Society of Surinam.
- 1799 An English force seizes Surinam.
- 1802 Surinam restored to the Dutch.
- 1803 Surinam retaken by the British.
- 1815 Surinam again restored to the Dutch.
- 1821, 1832 Conflagrations at Paramaribo.
- 1851 Epidemic of yellow fever.
- 1863 Emancipation of slaves. House of Assembly created.
- 1870 Convention between Great Britain and Holland arranging for use of Indian coolie labour.
- 1884 Creation of Royal West India Mail Company.
- 1915 Line of demarcation made between Dutch and French Guiana.

(1) 1674-1799

THE result of the two Anglo-Dutch wars of 1665-67 and 1672-74 was to leave Surinam absolutely ruined by the final withdrawal in 1674 of the English settlers with their slaves and property. As the colony had been conquered by a squadron from Zeeland in 1667, under the command of a Zeelander, Admiral Crynssen, it passed after the peace into the possession of the States of Zeeland. Its chief hope lay in the presence of a number of Jewish settlers. The final expulsion of the Dutch from Brazil in 1654 had led to a great number of the Jews flying from Pernambuco and seeking refuge in

the West Indies. A settlement under David Nassy was made in Cayenne in 1659; and a considerable part of the colonists who in 1658 went out to the Pomeroon were likewise Brazilian refugees. Driven out by the French from Cayenne in 1664, the Nassy colonists, under a special grant¹ obtained by Lord Willoughby, the patron of Surinam, were allowed to migrate to that colony; and they settled high up the river in what was known in 1665 as the Jewish Savannah. In the same year an English military expedition captured and destroyed the Pomeroon colony; and many of the Pomeroon Jews, after Surinam had been taken by Admiral Crynssen, made their way thither, so that in 1674 there was in the colony an important body of Jewish settlers, mostly of Portuguese or Spanish origin.

The States of Zeeland, in taking over the administration, endeavoured to make their newly acquired colonial possession a profitable venture; but they found that the outlay needed for repairing the devastations of war was beyond their means. In 1682 they succeeded in persuading the directors of the West India Company to purchase their rights for 260,000 florins; and the States-General gave their sanction by granting a charter to the Company. Scarcely, however, had the colony passed into their hands when the directors in their turn perceived that the cost of making it a profitable concern was out of the power of a company which was already involved in heavy debt. The Council of Ten thereupon resolved to re-sell two-thirds of their property—one-third to the city of Amsterdam and one-third to Cornelis van Aerssen, lord of Sommelsdijk, and his heirs. The three proprietors, with the sanction of the States-General, were formed into a company under the name of the Society of Surinam, governed by a board of directors. The sovereignty remained with the State.

Sommelsdijk was the son of Francis van Aerssen, the trusted friend and counsellor of the Stadholders,

¹ This grant was the first of its kind made by an English Government to the Jews. Its date is Aug. 17, 1665.

Maurice and Frederick Henry of Orange, and was a man not only of high position and distinction but of great administrative ability. By his own wish he went out as Governor of Surinam (September 1683); and during the five years of his energetic rule he achieved results which entitle him to be regarded as the real founder of the colony. His methods were autocratic and high-handed; but his energy was prodigious, and he succeeded in bringing a bankrupt and unruly settlement into a condition of orderly progress.

His first task was to gain the goodwill of the native Indian tribes. After repelling their attacks, he succeeded, by the offer of conciliatory and liberal terms, in converting these Carib and Arawak foes into close friends and allies. He protected the Nassy settlement at the Jewish Savannah, which became one of the most prosperous in the colony. He erected a Court of Justice, before which offenders of every kind were brought and sternly punished. When he arrived at Paramaribo he found the garrison idle, undisciplined, and marauding. He employed them in hard and useful work, in digging the Sommelsdijk Canal between the Rivers Surinam and Saramacca, and in building forts. When he landed there were but fifty plantations in the colony, many half ruined. At his death there were more than 200, which stretched some sixty miles inland. Among other things, the cultivation of the cacao plant was introduced by him. He was killed (1688) by mutinous soldiers, who were subsequently reduced to order.

Sommelsdijk's son, Francis, lord of Châtillon, declined the post of Governor; but he accompanied in a private capacity the new Governor, Scharphuijsen, and was of much assistance to him in furthering the welfare of the colony on the lines laid down by his father. He was still in Surinam in 1689, when the French corsair Du Casse attacked the colony. Châtillon drove off the invaders, who afterwards made themselves masters of Berbice. One of the reasons for this attack may have been that about this time numbers of French

Huguenots, driven out of their country by the revocation of the Edict of Nantes, sought refuge in Surinam, where they founded a settlement.

An attack in 1712 by another French privateer force, under the notorious Jacques de Cassard, was more successful. The French landed troops, pillaged the plantations, and extorted a heavy ransom. For some years before this there had been a constant leakage among the slaves, who escaped from the plantations and took refuge in the forests. The French invasion enabled numbers of other fugitives to join these Bush negroes (*boschnegers*, *marrons*), who now became a danger to the safety of the higher plantations. For some sixty years the history of the colony mainly consists of expeditions sent against them. Most of these expeditions were failures; and, though in the end the Bush negroes were pacified, they were never subdued, and practically obtained their full liberty.

In spite of these drawbacks, the colony made continual progress. Sugar and cacao were far from being the only source of profit to the planters. In 1706 cotton and tobacco, in 1708 indigo, in 1720 coffee, began to be cultivated; and the exports of these commodities became from year to year more important. The number of vessels that sailed from Paramaribo for the mother-country in 1775 was sixty-four, and they carried 15,200,000 lb. of sugar, 18,000 lb. of coffee, 600,000 lb. of cacao, and 160,000 lb. of cotton, besides other goods, the value being reckoned at 1,416,250 florins.

The Government of Surinam during this period was similar to that of the other Dutch Guiana colonies. The Governor was appointed by the Society with the approval of the States-General, and he took an oath faithfully to carry out the terms of the charter. There was the usual Court of Policy and Criminal Jurisdiction, consisting of the Governor, the Commander of the troops, the Secretary, the Fiscal, and ten Councillors, and a Court of Civil Justice, presided over by the Governor, with six Councillors. The Governor chose

the Councillors out of a double number elected by the settlers. The Sommeldijk family in 1770 sold their share in the Society of Surinam to the town of Amsterdam, which thus became possessed of a two-thirds interest in the colony.

When war broke out between Great Britain and Holland in 1780, and Essequibo, Demerara, and Berbice were captured by the British Fleet, to be shortly afterwards retaken by the French, Surinam escaped a like fate, its fortifications having proved a sufficient defence against a *coup de main*. In 1791 the West India Company and the Society of Surinam were both suppressed by the Grand Pensionary, Van den Spiegel, and all the Guiana colonies were placed under the control of a Colonial Council, with the privilege of free trade. The conquest of Holland by the French and the creation of the Batavian Republic in 1795 led to war with Great Britain. In 1796 a British force, acting in the name of the Stadholder, William V, then a refugee in England, took possession of the Guiana colonies, Demerara, Essequibo, and Berbice, and in 1799 of Surinam.

(2) 1799-1914

The conditions of the surrender of Surinam were the same as those granted in 1796 to the colonies of Demerara, Essequibo, and Berbice. At the Peace of Amiens Surinam was restored to the Dutch, only to be retaken by the British in 1803, when war again broke out between Great Britain and France. In 1815 Surinam once more passed into Dutch hands. Before the French conquest of Holland in 1795 Surinam was the most flourishing of all the Dutch Guiana colonies; and during the period of British occupation no attempt was made to interfere with its administration or industries. But here, as in Demerara and Berbice, the abolition of the slave traffic stopped the importation of fresh slaves from Africa; and the colony suffered from shortage of labour, and at the same time from lack of capital.

Surinam was cut off from intercourse with the motherland and with Europe; and British enterprise and capital flowed to Demerara and avoided Surinam.

At the beginning of the nineteenth century the value of the exports from Surinam amounted to about two millions sterling, and was equal to that of the Three Rivers, Demerara, Essequibo, and Berbice; but after 1815 a period of decadence set in. The interest of the Dutch was centred upon the East Indies rather than upon the West, upon Java to the neglect of Surinam; and for a succession of years the revolt and separation of Belgium diverted all the energies of the Dutch Government and people. Holland, in 1844, was financially exhausted, and had no funds to spare for the development of her West Indian possessions, and the revenue of Surinam has never up to the present time sufficed for her needs without a large subsidy from the home Government. To add to the troubles arising from these causes—lack of labour and lack of capital—two terrible conflagrations devastated Paramaribo in 1821 and 1832, and in 1851 a fatal epidemic of yellow fever. At this time large numbers of the plantations were being given up, and financially and commercially the fortunes of Surinam sank to their lowest point. A slow, but gradual, revival was to follow, but never real prosperity. The long-delayed emancipation of the slaves took place in 1863, the slaves having, as in the British colony, to serve an “apprenticeship,” but in this case one of ten years, before absolute freedom was conceded. It is a remarkable fact that in spite of this, neither before the act of emancipation, nor during the long period of “apprenticeship,” nor after the full grant of liberty, were there any riots or disturbances of any kind. This speaks well for the good relations which must have subsisted between the blacks and their masters. It is the more remarkable as Surinam had been the scene of a servile war lasting for sixty years.

The discovery in 1887 of auriferous deposits in the

borderland between Dutch and French Guiana' led to an amicable settlement of the boundary question between the two Powers in the Upper Marowyne district.

One of the features of Surinam is the thoroughly Dutch character of the colony. The Dutch as colonists carry with them, perhaps more than any other people, their distinctive racial characteristics. In British Guiana the Dutch origin of the Demerara-Essequibo-Berbice colony is still strongly marked. In Surinam the visitor to Paramaribo or New Nickerie might imagine himself on the banks of the Waal, the Lek, or the Yssel; and the farms in the neighbourhood of the capital are veritable Hollander *boerderijen*. Even the negro-creoles have assimilated much of the habits and mode of living of their former masters. There is an Old-Holland atmosphere, in fact, pervading Surinam. The creation of the Royal West India Mail Service in 1884, and of the Suriname Studie-Syndicaat² in 1916, points to an increasing interest on the part of the mother-country in the fortunes of the Guiana colony towards the end of the last century.

¹ Between the Rivers Tapanahoni and Awa.

² See *infra*, Appendix (B), p. 69.

III. SOCIAL AND POLITICAL CONDITIONS

(1) RELIGIOUS

THE Dutch Government upholds entire religious liberty in its colonies. The numbers of those professing the Christian faith are :

Moravians	...	...	...	26,000
Roman Catholics	...	...	...	19,000
Dutch Reformed	...	...	...	7,000
Lutherans	...	...	...	3,000
Episcopalians	...	...	...	900
Baptists	...	...	...	50

Other faiths are represented by :

Mohammedans	...	...	...	11,000
Hindoos	...	...	...	17,000
Jews	...	...	...	900

One of the most noteworthy features of the religious history of Surinam has been the astonishing success of the missions of the Moravian Brethren or *Herrnhuters*. The efforts of the Moravian missionaries began so early as 1735, but at first without success. Not till 1776 was the first negro baptised. This was the beginning of a remarkable movement; for in 1863, the year of the emancipation, three-fourths of the negro workers had adopted the Moravian faith.

(2) POLITICAL

All the Dutch West Indian possessions had a common Governor until 1846. He resided at Paramaribo. Until 1863 the form of government was autocratic in the sense that the colonists had no voice in it. The Governor, appointed directly by the Crown,

possessed very extensive powers. All subordinate posts in the colony were in his gift, and the entire administration centred in his person. He was assisted by a Council, which only met for consultation when summoned by him, and over which he presided. Three of the nine members of this Council—the Procureur-General, the Fiscal, and the Secretary—sat *ex officio*. The other six were nominated by the Governor from among the principal planters of the colony. The only checks upon the Governor's authority were the political and magisterial powers vested in the Procureur-General, himself a Crown official, and the control of the Fiscal over financial proposals. In 1863 a House of Assembly (*Coloniale Staten*) was created. In this Assembly the Governor presided and nominated four members; nine others were elected by voters who paid 40 florins annually in taxes; and they sat for six years. But the Assembly had no initiative or any real financial control, its powers being limited to debate upon the measures submitted to its consideration by the Governor. This system has remained practically unchanged to the present day. Surinam is now divided into sixteen districts, over which Commissaries nominated by the Governor exercise considerable administrative powers.

The Roman-Dutch law is the legal code of the colony. The Supreme Court of Justice, whose members are nominated by the Crown, has its seat at Paramaribo. There are, besides, three cantonal Courts and two circuit Courts.

(3) EDUCATIONAL

Public education is partly provided by Government schools; partly by sectarian schools, with a certain amount of Government subsidy. Considerable progress has been made in recent years.

There are now twenty-nine schools at Paramaribo,

and thirty-nine in other districts. The Paramaribo schools are thus distributed :—

Government	...	...	...	...	7
Moravian	...	...	...	...	7
Roman Catholic	...	...	...	...	8
Free Evangelical	...	...	...	...	1
African Methodist Episcopal	...	...	...	...	1
Private	...	...	...	...	5

The district schools thus:—

Government	...	...	...	...	21
Moravian	...	...	...	...	9
Roman Catholic	...	...	...	...	9

The number of children attending school is estimated at 10,300.

GENERAL OBSERVATIONS

The mixed population is contented and thoroughly loyal to the mother-country. The negro-creoles are Dutch in sentiment, and the coolies, who have elected to settle in Surinam, promise to be a very valuable element.

There can be no expansion of territory, for the boundaries with Great Britain, France, and Brazil have been amicably determined and settled.

Expansion of the cultivated area is much to be desired. The plantations at one time extended to a far greater distance inland, and were much more numerous than at present. By the expenditure of capital vast possibilities might be realised in a land where all tropical products flourish and the forests are full of valuable timber and offer great scope for the balata industry.

IV. ECONOMIC CONDITIONS

(A) MEANS OF COMMUNICATION

(1) INTERNAL

(a) *Roads*

THE natural highways of Dutch Guiana are its rivers, and therefore the country has no good roads and not many bad ones. Such roads as exist are for the most part near the capital, Paramaribo, and in the Coronie district, which has fewer waterways than the other inhabited regions of the colony. Privately constructed roads or tracks are occasionally to be met with upon or in connection with a plantation or a goldfield. Even in the capital the streets are of indifferent quality, are unequal to the demands of heavy traffic, and are in constant need of drainage and repair. Beyond the urban limits the roads are still poorer and even less useful. The majority of them are situated in low-lying swampy localities; in the absence of good and cheap materials they are made of inferior substances, lacking solidity and permanence, and all of them are exposed to the disintegrating effects of a prolonged and heavy rainfall. Whilst in favourable circumstances motor-cars may be used upon a few of them, and bicycles upon a greater number, the purpose normally served by the majority is for the passage of mule-carts and donkey-carts, with carrying capacities respectively of about 11 and 7 cwt.

The most important road in the interior is that known as Brownsweg, from Berg-en-dal to the Brownsgebergte. This road, $17\frac{1}{2}$ miles long and 13 ft.

broad, was privately made in 1890 by the owner of the Montana Mine. The numerous "creeks," or small rivers, which it traversed necessitated the erection of about one hundred bridges, and the cost of construction amounted to £3,000, or rather more than £171 a mile. In the case of the bush road the problem of maintenance is not much inferior in difficulty to that of construction. Thus the Brownsveg was still fit for use by light carts in 1903, but two years later many of the bridges had perished and whole stretches of the road were overgrown by tropical vegetation, so that extensive repairs were necessary. The first section of $7\frac{1}{2}$ miles having been repaired and a connection made to the Placer Van Jong Savannah, the new route was for a time utilised by mule-carts in connection with the Placer Gros and with the railway which was under construction at that time. In 1907, however, an exceptional rainfall carried away most of the bridges on both sections of the road, and the whole again became impracticable for wheeled traffic. Yet, costly and troublesome as they are, a few cart-roads are generally maintained upon the goldfields.

Mules come from America, and used to cost £33 or £34 before the outbreak of war. Horses are scarce. Besides mule-carts and donkey-carts, pack animals are sometimes used, and riding is practised here and there, but competent grooms are few, and there is a scarcity of fodder fit for a beast in heavy work. The most useful form of transport in the interior is human portage. The carrier, unless he be a negro from the French West Indies, where loads are carried on the head, usually straps his burden on his back, and an experienced man will carry 65 lb., 75 lb., or even as much as 90 lb. But this mode of portage is a knack to be acquired only by long practice, and while 55 lb. may be regarded as the normal burden, a load of 35 lb. will try the powers of the beginner. The distances which the carrier can cover are governed to some extent by the nature of the ground; but six miles laden and six unladen constitute a fair day's march when con-

ditions are normal. In the Lawa mining area, where there is hilly and difficult country, portorage is in the hands of special carriers. Elsewhere on the goldfields the mining hand is generally sent down himself to fetch his rations from the mine's provision depot, established on the bank of the nearest navigable creek, and he usually contrives to bring back 46 lb., or a three-weeks' supply. The pay and food allowances of the professional porter are such that it costs approximately 10s. 6d. to move 88 lb. a distance of six or eight miles. The expense of moving light articles is, however, of small moment in comparison with the prohibitive cost, and sometimes the physical impossibility, of transporting heavy articles through the bush. All the industries whose operations are conducted in the interior, such as gold-mining, timber-getting, and balata-collecting, are affected in varying degrees by the transport problem. The mines are perhaps the chief sufferers, for the difficulties of moving heavy machinery through the bush can readily be imagined. Insuperable though they may appear, these difficulties have sometimes been surmounted. Some years ago a 170-ton dredger was delivered to the Gran Placer, a distance of some 105 miles by water and $6\frac{1}{4}$ by land, the cost amounting to about £43 a ton; and a 400-ton hydraulic apparatus, sent from England to the Dutch Guiana Concessions, was delivered at a still greater proportionate cost.

(b) *Rivers*

The means of communication by water are much more satisfactory. The bounty of nature, aided in places by the industry of man, has endowed Surinam with an extensive network of waterways, and adequate facilities for utilising it are provided. Here, as in the neighbouring colonies, the utility of the numerous rivers is diminished by the rapids and falls which encumber their courses; and, since the Surinam rivers are apparently dependent for their water supply upon the rainfall, there is a deficiency of water in times of

drought, even in parts of the lower reaches; but the inhabited and cultivated areas are intersected by a remarkable network of rivers, creeks, and canals. It is even possible for a vessel to pass from the boundary river on one side of the colony to the boundary river on the other without once going into blue water; and, with the exception of Coronie, not a single coastal district is dependent upon roads and wheeled traffic.

The chief rivers of Surinam, named in order from west to east, are the Corentyne, the Nickerie, the Coppename, the Saramacca, the Surinam, the Cottica, and the Marowyne.

The *Corentyne* (*Corantijne*), which is 4 miles wide at the mouth, is the broadest river in the colony, and is navigable for a considerable distance. The entrance is obstructed by flats, and the bar, which has 15 ft. of water on it at high-water springs, has no more than 7 ft. when the tide is down, while low-water depths of two fathoms or less extend for some miles beyond it. Ships of 10 ft. or 11 ft. draught can reach the Indian village of Oreala, which is 60 miles from the sea, but such vessels seldom ascend above the southernmost plantation some 4 miles from the mouth. Craft drawing 5 ft. or 6 ft. can proceed upstream for a distance of about 150 miles. The first falls are reached on the seventh day by canoe or rowing-boat from Oreala, and on the following day the traveller comes to the great fall of Wonotobo, which is 90 ft. high. In the lower river the ebb tide runs with a velocity of 3 to $3\frac{1}{2}$ knots in times of rain. The Corentyne is the boundary river between Dutch and British Guiana.

The *Nickerie* is distinguished by the great distance for which it is navigable, and although awkward mud-flats obstruct its entrance, ships of 9 ft. or 10 ft. draught can proceed for more than 60 miles upstream. New Nickerie is about 3 miles from the entrance. At the mouth of the Arrawarra creek the main river is still 80 yards wide and upwards of 20 ft. deep. In ordinary seasons steamboats can proceed as far as the mouth of the Zonnevisch creek. Above that

point the rocks begin, and a little higher up the first rapids occur. At 25 miles from the mouth the Nickerie is joined by a large but sinuous tributary, the *Maratakka*, which is about 85 yards wide, and navigable for ships of 9 ft. or 10 ft. draught to the point of its junction with the Takomaro creek.

The *Coppename* has a mud-bank at its mouth over which ships drawing 15 ft. or 16 ft. can pass at spring tides, and the river can be ascended by such vessels as far as the Wayombo creek, whence Coppencrissie, the chief settlement of the Boschnegers (Bush negroes) on this river, is reached by river steamer. The *Wayombo*, which has a depth of 16 ft. at its mouth, is connected with the Arrawarra creek, a tributary of the Nickerie, and this connection, which can be used by large boats at all times of the year, is available for steamers in the rainy season. Of the other affluents of the Coppename the *Cusewyne* is navigable for small steam vessels for some 15 or 16 miles, when overhanging foliage does not offer obstacles to decked craft, and the *Tibitie* can be ascended by vessels of 9 ft. draught as far as the Kabo creek.

In the *Saramacca*, which has a mouth common to itself and the Coppename, navigation is impeded by the narrowness of the river and its tortuous course, and this stream is not much used by sea-going vessels, though in the rainy season ships of 11 ft. draught can go up as far as Anna's-Zorg. Joined as it is to the Surinam River by the Saramacca Canal, the Saramacca offers an opportunity for a river service between Paramaribo and Mindrinetie Station, whence access is obtained to the goldfields of the Upper Saramacca and of the Mindrinetie creek. The river is always navigable for small boats to Kwakugron; in normal seasons it is navigable to Brokolonko; and in the rainy seasons Jacob Kondré can be reached. Above Kwakugron there is no water in periods of drought for anything except canoes. On the Mindrinetie creek conditions fluctuate, and the creek is very tortuous, though many of the bends can be avoided by the use of natural short

cuts. These waterways used to be of great importance in connection with the goldfields of the district, which include some well-known mines; but their utility has been diminished by the construction of the railway (see p. 27).

The *Surinam* (*Suriname*) is the most important river in Dutch Guiana. Vessels of considerable tonnage can reach Paramaribo, which is situated on the west bank some 13 miles from the mouth (see p. 29), and for vessels of smaller draught the river is navigable for a considerably greater distance. The influence of the tides extends for 60 miles from the mouth, and at 85 miles the water becomes fresh. The upper river is the natural highway to what are known as the first and second gold zones, and on the whole it may be considered to be convenient for this purpose, though there is a deficiency of water in times of drought, and there are awkward rapids in the river and in the Sara and Gran creeks. When the gold industry was in its prime parties were stationed at these rapids to assist the boats, but with the decentralisation of the industry this practice has fallen into desuetude. There is a regular service upstream from Paramaribo, which extends to Boschland, an eight-hours' journey in normal conditions, but in times of drought has to be suspended at Berg-en-dal, a four-hours' run. From these stations many goldfields may be reached in canoes or other privately chartered craft. The importance of this route to the interior, which was formerly used by some thousands of persons annually, has been diminished by the construction of the Lawa Railway.

The chief affluent of the Surinam, the *Commewyne* (*Commewijne*), joins the main river some 7 miles above its mouth. It is 1 mile wide at the entrance, with a low-water depth of 9 ft. About 15 miles up is the settlement of Sommelsdijk, which can be reached by light-draught vessels. The banks of this river are highly cultivated, sugar and cacao plantations being scattered along it. The Commewyne is in its turn

joined by the *Cottica*. Of less importance physically than the other streams mentioned, this river flows through a country of which much has been developed, and it possesses a steamboat service.

The *Marowyne* (*Marowijne*, *Maroni*), the boundary river on the side of French Guiana, is bigger than the Surinam, but is not so deep, and ships of 11 ft. draught are the largest that can enter. Such vessels can go to Albina, where a jetty 88 ft. long offers facilities for discharging. The Marowyne is joined by the *Tapana-honi* and *Awa* (*Lawa*) rivers, the latter of which gives its name to an important gold-bearing district.

River Transport.—The establishment of a steamer service on the rivers was tried by private enterprise, first in 1836 and again in 1857, but both attempts failed. The matter was then taken up by the Government, to provide access to the goldfields and the balata forests. As now maintained the river services may be pronounced not unsatisfactory, having regard to the scanty population and to agricultural and industrial conditions. At the end of the year 1914 the Government owned sixteen steamers and motor-boats, and operated services on the Surinam, Commewyne, Cottica, Lower Saramacca, and Marowyne rivers, besides maintaining connection by sea or river between Paramaribo and places not included in the river services, such as Albina, Coronie, and New Nickerie. In the case of Coronie the service is liable to suspension, and is never very satisfactory, as mud-banks make it necessary to lie far off-shore, and passengers and goods have to be embarked and disembarked in a small boat in a sea which is often rough. Privately owned schooners and cutters occasionally ply to New Nickerie and Albina, and cutters sail between Paramaribo and Coronie, often going by way of the Saramacca, although at high tide these small craft can get over the mud-banks off-shore. A service on the Upper Saramacca, provisionally opened in connection with that on the lower river, was suspended early in 1915 for lack of support, and several other services are liable to suspension or curtailment.

by reason of climatic conditions, such as a severe drought, or of industrial fluctuations, such as a temporary failure of balata. All the services are mainly for passengers, the carriage of goods being of small importance and limited to light articles, on account of the absence of jetties on most of the plantations and the consequent difficulty in charging steamers. To load a vessel in mid-stream from small boats is a tedious and costly process, so that growers prefer to market their produce in their own boats, the more so as all the estates are within the tidal limits, where navigation is easy.

Owing to the convenience of the tides and to the variability of the winds at short distances inland from the coast, not much use is made of sails on the rivers of Surinam. Nor are boats often towed, owing to their small dimensions and to the unsuitability of the river steamers for such a purpose. In the old days, when the slave-owner commanded a plentiful labour supply, passengers travelled in large rowing-boats, which were 30 ft. or 40 ft. in length, were worked by a crew of four or six men, and had cabin accommodation for eight persons or more, while goods were carried in great punts, which were wholly or partly covered. Such craft may still be seen on the lower rivers, where they can cover fair distances on the tide; but on the rivers as a whole the chief means of locomotion, apart from the steamer and motor-boat services, is the Indian or Boschneger canoe, the Boschneger in particular being a really wonderful waterman. So far as the use of the old-fashioned boats and punts is curtailed by lack of labour, matters could apparently be remedied by installing motor engines in some of the boats, which could then carry the estates' personnel with speed and convenience, and could tow a string of laden punts. The navigation of the upper rivers, never easy anywhere in Guiana on account of the rapids and falls by which the streams are broken, is rendered exceptionally difficult in Surinam by the great variations in the depth of water from season to season, the rivers

running almost dry in periods of drought, and frequent unloadings and land porterages being then necessary. The cost of transport is thus considerable.

(c) *Railway*

The colony possesses one line of railway. It is known as the Lawa Railway, and was originally intended to reach the Lawa gold district, but the result of a scientific investigation of the Lawa field was thought not to justify a great outlay for construction, and it was decided that the terminus of the line should be at Dam on the Sara creek. A line to the interior had long been talked of, but nothing was done until in 1903 the Government took up the proposal and began operations. The first section of $24\frac{1}{2}$ miles, begun in September 1903, was completed and opened for traffic in March 1905. Rates on this section were fixed at moderate amounts, to induce settlement, and a good deal of land along the line was taken up by British, Indian, and creole settlers. Another 25-mile section was finished soon after the completion of the first, but after that the progress of construction became slow. In 1906 about 65 miles were open for general traffic; in 1908 the line reached the Surinam River, 83 miles from Paramaribo, and the last section, to Dam, was completed in 1912.

After running through the Para district the line bends towards the south-west near the Saramacca River, which it touches near Maäbo, then goes along the Mindrinetie creek to the Surinam River, which it meets at the mouth of the Makami creek. The Surinam, which here is over 300 yards in breadth, is crossed by a cable ferry in lieu of a bridge. From the right bank of the river the line runs on, approximately south-eastwards, over the watershed which divides the Surinam from the Sara creek up to its point of junction with the creek, and thence along the creek to Dam. The distances from Paramaribo are 49 miles to the Saramacca and 83 to the cable station, and the

total length of the railway is 107 miles. Including the delay, normally of about an hour and a-half, at the cable station, the whole journey occupies about $10\frac{1}{2}$ hours. There is only one through train each way in the week. River services run in connection with the railway.

On the annual average of the years 1906 to 1915 the railway carried 5,496 first-class passengers, 209,668 second-class passengers, 3,469 tons of goods, and 10,152 ounces of gold, the corresponding receipts being £387, £5,882, £2,535, and £224; other receipts amounted to £1,306; and the total receipts averaged £10,334.¹ Critics of the railway have asserted that it traverses the poorest agricultural land in the country, that the gold district it serves is limited, that the train service is inadequate, that the present terminus is unfortunately situated, and that, although rates are high, the working expenses are higher still. Appropriations for construction and maintenance have certainly been large, but the railway has not long been equipped for regular traffic; settlements, plantations, rubber estates, timber concessions, and mining propositions are gradually multiplying within the sphere of its influence; the receipts show a tendency to increase; and its future should be brighter than its past.

(d) Posts and Telephones

The internal postal service of the colony was re-organised and improved by regulations of 1888, 1896, and 1907. Post-boxes are found at the post-offices of the chief towns and settlements, at the landing-places of the Colonial Steamer Service, and at the headquarters of the Commissioners of the several districts. On December 31, 1915, the length of Government telephone lines was about 500 miles; the service had a personnel of 20 officials; and, including Government connections, there were 358 subscribers.

¹ *Koloniale Verslagen.*

(2) EXTERNAL

(a) *Ports*

Paramaribo, the capital and chief port of the colony, is situated on the Surinam River, about 13 miles above the mouth. Ships of 16 ft. draught can reach the port at high-water neaps, vessels of 20 ft. or 21 ft. draught can enter on the spring flood, and vessels up to 12 ft. in draught can enter at all states of the tide. In the mouth of the river, which is 2 miles wide, there are hard mud-banks at the sides, and a fairway in the middle over soft mud; the channel is well marked by beacons, lights, and buoys; but assistance is desirable in entering, as bars are apt to form in the river. Off the town there is an anchorage in four or five fathoms, and the town has a deep-water frontage of about one mile, a small portion of it wharfed and the whole furnished with quays, piers, and warehouses. At the wharf owned by the Royal West India Mail Service (Koninklijke West-Indische Maildienst) mail steamers berth alongside in a depth of 18 ft. at low water; the quays of the Colonial Steamer Service and of the State Railway can accommodate equally large vessels; and the Government and Customs House jetties and a privately owned pier each have depths of 16 ft. at their east ends and 12 ft. at their west ends at low-water springs. At the coal wharf, where 4,000 tons of Welsh steam coal are generally kept in stock by the Netherlands-Indian Gas Company (Nederlandsch-Indische Gasmaatschappij), there is a depth alongside of at least 20 ft. A certain number of cranes exists, but there appear to be no facilities for lifting really heavy weights. There is a Government machine-shop for repairing steamships, but there is no dock accommodation; this must be sought at Georgetown or in the West Indian Islands. Provisions of all kinds are rather costly, and water is sometimes scarce.

New Nickerie, on the Nickerie River, some 3 miles from the mouth, may be visited by vessels of moderate draught (see p. 22), and similar vessels may reach

Albina on the Marowyne, at both of which places there are facilities for loading and discharging cargo. A few of the great estates on such rivers as the Surinam, Commewyne, and Cottica have jetties capable of accommodating ocean-going vessels. For example, the Marienburg sugar estate has a jetty 164 ft. long with a depth alongside of 19 ft., at Belwaarde on the Surinam, as well as a smaller jetty on the Coppename. Estates on the Nickerie are also sometimes served by sailing-vessels, though sails have for the most part been superseded by steam in Surinam waters.

(b) Shipping Lines

Although the colony does not lie on any great line of communication, such as that between Europe and South America, yet in normal conditions it has a fair steamship connection with Holland, the United States, and West Indian ports. The Koninklijke West-Indische Mailldienst, fortnightly from Amsterdam to New York, *via* the British and Dutch West Indies, Venezuela, and Hayti, makes Paramaribo the first port of call on the outward and the last on the homeward voyage. Every three weeks the port is visited by steamers of the Trinidad Steam Shipping Company, running between New York and West Indian ports. There is a connection monthly with the service of the Compagnie Générale Transatlantique from Saint-Nazaire to the West Indies, Martinique, and Colon. Connection with other European and American services may be had by the vessels of Sproston's, Limited, of Georgetown, who run a fortnightly service to Paramaribo, calling at New Nickerie, and by the fortnightly inter-colonial coastwise service maintained by the Dutch Colonial Government. In former days, and notably in the early years of the present century, Surinam was still better served by steamship lines. Regular or frequent calls were then made by vessels of the Royal Mail Steam Packet Company, the East Asiatic Company, the Quebec Steamship Company, the Scrutton

Line, and the Società di Navigazione Generale Italiana. The Royal Mail service provided a direct connection with the United Kingdom, and its discontinuance was a set-back to British trade interests in Surinam. The now abandoned service of fruit steamers (see p. 46) also furnished a convenient means of carrying passengers, cargo, and mails to the United States. Of the connection with the United States, as it exists now, merchants complain that the shortness of the time during which ships lie in port, coupled with the uncertainty of the posts, presents grave impediments to business.

Shipping Statistics.—On the annual average of the years 1905 to 1914, 225 vessels of 179,398 tons entered the ports of the colony. Of these 108, with a tonnage of 125,731 tons, or 70 per cent. of the total tonnage, were Dutch; 72, of 19,685 tons, or 11 per cent., were British; 26, of 16,647 tons, or 9 per cent., were French; 6, of 9,917 tons, or $5\frac{1}{2}$ per cent., were Danish; and 13, of 7,418 tons, or $4\frac{1}{2}$ per cent., belonged to other countries. On a comparison of the annual averages for the periods 1905-9 and 1910-14, the total shipping showed an increase from 222 vessels of 155,860 tons on the average of the first period to 227 vessels of 202,937 tons on the average of the second; and on a comparison of the same averages the percentage of Danish tonnage doubled, and Dutch, British, and French tonnages showed actual increases but small relative declines.¹

(c) Cables

The cable connection between Surinam and the outside world is maintained by the Compagnie Française des Câbles Télégraphiques, which in 1889 acquired a concession for linking up the colony with the international telegraphic system. It has two submarine cables—that to Martinique gives connection through other West Indian islands with New York and with

¹ *Koloniale Verslagen.*

Europe, while the cable to Cayenne gives connection with Europe and with Brazil. Under the terms of its concession the company was to receive a subsidy for the term of 25 years, but the subsidy has been continued, the company alleging that the costliness of the service prohibits its maintenance without a grant in aid. Besides being costly, the service is somewhat inefficient, interruption being of not infrequent occurrence, while the absence of a cable ship involves much delay in the execution of repairs.

(B) INDUSTRY

(1) LABOUR AND IMMIGRATION

In Surinam, as in the neighbouring colonies and in many tropical countries where the white man is incapable of prolonged manual exertion, the maintenance of an adequate labour supply is a matter of perennial difficulty. Want of population, and especially of labour, said the official report for 1908, is a complaint from which Surinam has suffered much in the past, and beneath which she might yet succumb. This it was which caused the importation of slaves in former times, and, after the abolition of slavery, led to the importation of indentured labour. As a plantation colony, the prosperity of which depended entirely upon one or more agricultural exports, Surinam was greatly embarrassed by the emancipation of the slaves, who refused to go on working for their old masters. Offers by the planters of premiums for immigrants failed to avert the prospect of ruin, and the Government itself was compelled to seek for the solution of a problem which was both vital and urgent. Its first step was the formation of an Immigration Department. A supply of workpeople from British India being eagerly desired, an agreement was made with the British authorities under which power was conferred upon the Dutch Government to recruit a labour force in British India under a five-year indenture system. This convention

was signed at The Hague on September 8, 1870. It stipulated that the contract of service was to be concluded in India; that the engagement was to be for a period not exceeding five years; that recruitment was to be for agriculture or commerce, and not for work in the forests or in the goldfields; that the pay and conditions were to be at least as good as those prescribed in the Ordinance of 1861 relating to labour in Surinam; that the immigrant was to be entitled to a free passage home at the expiration of his indenture; and that British officials should enjoy facilities for watching over the interests of the coolies. The convention was followed in 1878 by a Colonial Ordinance establishing an Immigration Fund, and in the following year by an Ordinance regulating the treatment and care of indentured labourers on the estates.

For the planter the defects inherent in the importation of foreign labour are its costliness and the risk of failure by reason of the physical condition of the workpeople supplied. These defects the Ordinances of 1878 and 1879 went far to remove. The policy of the Immigration Fund was to bear the whole cost of the introduction and passage home of the force recruited, and to charge against the planter—and that only for payment by way of instalments—no more than three-fifths of the cost of importation alone of persons supplied to him in a condition of physical efficiency. The arrangement relieved the planter of many of his anxieties; he now knew precisely what his liabilities would be; he did not run the risk of squandering money on recruits who might arrive incapacitated by disease; he did not have to pay for the carriage of children too young to be of use to him; and he did not have to provide for an unknown liability in respect of return passages which might or might not be demanded at the expiration of the period of indenture.

If the expenditure incurred by the Fund has thus been advantageous to the planter, it has also been beneficial in a marked degree to the colony as a whole. To it are officially attributed a growth of nearly 50 per

cent. in population, a distinct improvement in economic conditions, and a steady increase in the general welfare. From 1903 to 1914 the immigration of British Indians and Dutch East Indians amounted to not far short of 1,500 a year. Since 1853 more than 50,000 immigrants in all have been introduced, of whom 33,721 came from British India, 11,283 from the Dutch East Indies, 2,675 from the West Indies, 2,502 from China, and 480 from Madeira. The contribution of immigration to the permanent population has been the more remarkable in that it has been only during the present century that serious endeavours have been made to convert the *ci-devant* indentured labourer into a colonist, and that it has been only within comparatively recent years that small holdings have begun to multiply and prosper. "Immigration under contract," said the *Koloniaal Verslag* (1908), "followed by settlement, is at present the only way in which a population can slowly be created in Surinam, and the example of the neighbouring British colony must be followed in this respect." The British Commissioners who investigated the conditions affecting British Indians in Surinam in 1913 reported that wages were rather unsatisfactory, as a result of the depressed condition of the plantations, at that time suffering from the ravages of disease, but that the immigrants had a favourable prospect before them as colonists. "Immigration into the colony," they said, "must depend primarily upon the wages paid to indentured labourers. Unless the earnings of able-bodied men generally exceed three guilders a week during the five years of agricultural apprenticeship which precede settlement, emigration to the colony cannot, in fairness to the immigrants, be recommended. . . . If tasks and wages in Surinam were modelled on those of British Guiana, the perquisites or special rewards being taken into account, and if the active colonisation policy of Surinam were imitated by British Guiana, industrious labourers emigrating to either colony would not fail to prosper."

The British Indian coolie possesses many of the qualities and aptitudes that go to the making of a good agricultural labourer, and by his diligence, thrift, and ambition he is well fitted to play the settler's part. His chief defect is, perhaps, the inferior physique which retards his acclimatization and leads to a loss of work which in the aggregate is often considerable; but to set against this he is willing in temper, amenable to discipline, regular in his habits, and generally adaptable to the requirements of the estates.

Experiments with Javanese labour were begun in 1890, when the Nederlandsche Handelsmaatschappij overcame the objections of the authorities to the recruitment of indentured labour in the Dutch East Indian dominions. The Javanese is more costly to import than the British Indian; as a labourer he is often guilty of deliberate slackness; and levity of disposition, love of display, want of thrift, and an abiding longing for his native country unfit him for the work of colonization. He is, however, remarkably successful in plantation work; his temper is gentle and conciliatory; and if inferior to the Indian in the manipulation of the shovel he is immensely his superior in the more delicate operations of the estate. In Dutch eyes it is also in his favour that he comes from Dutch dominions.

Though the British Indian and the Javanese are the mainstay of the labour market, other labour has been introduced from time to time, chiefly from China, the Portuguese Possessions, and West Indian islands. Like the Javanese, the Chinaman is obstinate in preserving his *animus revertendi*, and is thus of little use from the point of view of colonization. Of those who do remain, most establish themselves in small retail trade—much to the disgust of their Surinam competitors—and only a few continue as free labourers on the estates. These are invariably necessitous in their old age, when they have to be cared for at the expense of the colony, and the

charitable institution called " 's Landsgrond Boniface," the refuge of the aged and infirm, is usually full of them.

A few Portuguese labourers from Madeira and the Azores have been brought in in years gone by. They came with a useful knowledge of sub-tropical agriculture, but they were physically unequal to the demands of plantation work in Guiana, and speedily deserted the land for peddling, small trading, and shop-keeping, in which pursuits they attained great success. From the West Indies immigration into Surinam has never been considerable, owing largely to the competition of British Guiana and Trinidad; nor has it been conspicuously successful. As independent mechanics and artisans, however, many of them have done useful work; and the West Indian negro brings a valuable reinforcement to the balata forests, the timber concessions, and the goldfields. Primarily, however, it is to the Boschneger, the descendant of the ancient slave, that those industries have to look for their labour supply; and his marvellous skill in the management of a canoe has given him a virtual monopoly of transport on the upper rivers.

On December 31, 1913, there were on the plantations 4,431 British Indians under indenture, of whom 2,805 were men: 1,989 British Indians not under indenture, of whom 916 were men: 4,731 Dutch East Indians under indenture, of whom 3,326 were men: and 1,849 Dutch East Indians not under indenture, of whom 491 were men. In addition, there were in the colony 21,217 British Indians and 3,033 Dutch East Indians who were not under indenture and were not on the plantations. The general labour force of the estates at that time consisted of 8,505 men, 3,100 women, and 169 children. Of 45,000 persons whose occupations are recorded in the official statistics, 32,000 are engaged in agriculture, 4,000 in the goldfields and forests, and 5,600 in trade and commerce.¹

¹ *Koloniale Verslagen.*

In 1913 a Commission was appointed to collect information and statistics relating to labour, and to advise the Government on labour questions in general, and in particular with reference to the proposed establishment of some Labour Exchange system.

(2) AGRICULTURE

Estates and Plantations.—From the early days of European occupation agriculture has been the predominant industry of the colony, and "Surinam has become an agricultural colony to such an extent that the history of agriculture may be regarded as the economic history of the country."¹ The reclaiming, or "empoldering," of land and the cultivation of crops began on a considerable scale in the last quarter of the seventeenth century, when estates increased fourfold in number, and the export of sugar more than doubled within the space of 5 years. On the whole, though with fluctuating fortunes, sugar has retained throughout the pre-eminence which it then acquired. The success of sugar encouraged other ventures; cotton, cacao, and coffee became in turn exports of varying importance; and tobacco, indigo, and other crops were tried. In 1730 the estates numbered 400. At the close of that century they had increased to 665, with a labour force of 60,000. A period of difficulty and decadence then set in, brought about mainly² by the restriction and eventual suppression of slave labour, the extinction of the cotton-growing industry by American competition, the menace to the estates of bounty-fed beet sugar, and the pernicious effect of gold discoveries in deflecting capital and labour from the land; and the nineteenth century witnessed a rapid abandonment of the estates, as one planter after another surrendered to the inevitable. In 1832 the estates had decreased in number to 451, in 1840 to 383, and in 1853 to 263, the

¹ *Encyclopædie van Nederlandsch West-Indië*, p. 440.

² For other contributory causes see p. 14.

total area in cultivation at the last-mentioned date being reckoned at 130,000 acres. At the time of the emancipation of slaves (1863) the estates had fallen in number to 217, the cultivated area to 41,000 acres, and the labour force to 32,000; and in 1873 the figures were 123 estates with a cultivated area of 25,000 acres and a labour force of 13,000. The decline was then arrested, and since the beginning of the present century there have been indications of renewed prosperity. In 1903, though the number of estates had fallen to 82, there was still in cultivation an area of 25,000 acres; together with the small holdings, the satisfactory increase in which has helped to retrieve the fortunes of the industry, there were employed on them 32,000 persons; and ten years later the cultivated area of estates and small holdings together had risen to over 50,000 acres.¹

It is to be observed that the extent of the cultivated area, when ascertainable, is a truer criterion of the condition of the industry than the number of the estates; for the big planter is in a position to encounter misfortunes beneath which the small grower succumbs, and the area of big estates has actually increased during periods when the number of plantations has been falling fast. Modern methods of cultivation and manufacture, particularly in the production of sugar and in the growth of bananas for foreign markets, necessitate operations on a large scale, backed by considerable resources; and though the sugar estates are now reduced in number to five they produce as much as ever came from Surinam cane fields in agriculture's halcyon days. Ample supplies of capital are still to seek, but immigration has eased the labour situation, the cultivated area is again expanding, agricultural exports are once more rising, and there are indications that the policy of the Colonial Government and the patience and resource of the planters will recapture something of the lost prosperity. In a word, Surinam

¹ *Koloniale Verslagen and Encyclopædie van Nederlandsch West-Indië.*

agriculture, after passing from an epoch of rapid expansion to a period of still more speedy decay, is now in a condition of suspended animation, lately stirred by symptoms of renascent welfare.

The revival would have been more marked but for the epidemics of disease which have repeatedly ravaged the estates in recent years. Cacao has narrowly escaped entire ruin, and failure has overtaken an interesting experiment in the growth of bananas for export. The exceptional liability to disease in Surinam estates is not readily explicable, but it may be observed that the climatic conditions affecting them are somewhat different from those which obtain in British Guiana. In that colony nearly the whole of the empoldered area runs along the sea shore. In Surinam, on the other hand, where the land rises slightly at the coast, the plantations lie up the rivers at some little distance from the sea. Here the winds become light and variable; and, although the situation has some advantages, it would seem possible that the spread of disease may be favoured by a hot and humid atmosphere uncleansed by breezes off the sea.

Against this liability to disease must be set off an exceptional fertility in the soil. Nothing could be better suited to the sugar-cane than the alluvial clay of the polders on the lower rivers, where cultivation takes place, and it "has been pronounced by qualified opinion to be of considerably higher fertility than the general run of sugar-cane land in British Guiana."¹ Generally the soil of the low-lying lands is so rich that harvests can be reaped off it for a great number of successive years without the intermediate application of fertilisers and without any diminution in the yield. When at last a part of the property does show signs of lessened productivity, it is withdrawn from cultivation, dammed in, and inundated; and after lying fallow thus for a few years it may be brought back into cultivation in a condition of pristine fertility. This

¹ Consular Report, *Trade of Surinam*, 1913, Cd. 7620-66, annual series, No. 5456, p. 8.

method of treatment is made possible by the extent of the plantations. The Surinam polder, or area of land reclaimed by dams, dykes, and drainage and irrigation canals, corresponds in all essentials to its counterpart in British Guiana, but it usually contains a much greater proportion of uncultivated ground, since empoldering was originally carried out on an extensive scale, and great plantations were thus created with areas largely in excess of modern requirements. Accordingly, not only may this rotation of cultivation and inundation be followed on existing plantations, but new ones may be created cheaply by the reclamation of abandoned polders, for the repair of neglected dams and sluices, the dredging of old dykes and canals, and the clearing away of scrub constitute a far less formidable process than the empoldering of virgin land. Some practical benefit thus accrues from that which is in itself a certain indication of the decadence of the agricultural industry. Higher up the rivers, where the small holdings are situated, the fertility of the soil decreases, and it is the practice of many small holders to bring fresh ground into cultivation each year, so as to avoid the cost of manuring.

Small Holdings.—In official terminology a holding of 25 hectares (62 acres) or over is a plantation or estate, and a holding of under 25 hectares is a small holding or ground. The real difference between large and small holdings, however, lies not so much in their extent as in the economic principles upon which they are conducted. The estate represents a combination of capital with labour for the production of articles of export. The small holder grows with his own labour crops for his own needs and for local consumption. This, at least, is the theory, but in practice the small holder makes some contribution to the export trade, and his independence of paid assistance tends to disappear in proportion as he extends his operations under the stimulus of success.

The small holding may be said to be an outcome of coolie immigration. There had been some previous

experiments in land settlement, but these met with little success, and the great development of small holdings has followed upon the introduction of the coolie and the regulations of 1895, under which he may become the tenant or owner of a holding at the expiration of his indenture. Under these regulations small holdings have multiplied apace both within and without the limits of the Government settlements. In 1873 there were 1,181 small holdings; by 1903 these had increased to 19,756; and to-day the area in cultivation on the small holdings is larger than that in cultivation on the estates. The increasing domestic consumption for which it chiefly caters is of happy augury for the future of this branch of the industry. But the importance of the movement consists not so much in its contribution to agricultural progress as in the effect which immigration followed by colonization is likely to have in the creation of an agricultural population and the provision of an adequate labour reserve.

(a) *Products of Commercial Value*

Sugar is the most valuable of the crops, and makes the largest contribution to the export trade. On the annual average of the period 1900 to 1914 there were exported 8,862 tons of first grade sugar, of the value of £134,002; 869 tons of second grade sugar, of the value of £10,073; and 158,019 gallons of rum, of the value of £8,263.¹ The export of sugar has not increased much in quantity, but has nearly doubled in value, from 1900-4 to 1910-14. The export of rum is stationary. Production is high, and the yield of 2·1 tons per acre recorded² as the average for the years 1905-14 compares favourably with the results achieved in the neighbouring British colony. In the main the prevalent methods of cultivation and manufacture resemble those which are followed in the last-mentioned country (see *British Guiana*, No. 135 of this series,

¹ See Appendix, Table III, p. 72.

² In the *Koloniale Verslagen*.

pp. 54-5). Some anxiety is caused by root rot, rind disease, and insect pests, and the crops are occasionally impaired by drought. In 1915 there were five sugar estates: two in the Nickerie district, two on the Lower Commewyne, and one on the Cottica,¹ with a total area of 18,348 acres, of which rather over 7,000 were in cultivation, and a labour force of 6,771, of whom 6,184 were immigrants.² Nearly half the cultivated area is comprised in, and more than half the total production comes from, the united estates of Marienburg and Zoelen, on the Lower Commewyne, the property of the powerful Nederlandsche Handelmaatschappij. These are model sugar estates; commanding large resources, they operate on a large scale; they employ mechanical tillage and other power appliances; they own piers for lading ocean steamers (p. 30), and they are unique in Guiana in the possession of two lines of light railway, traversing the property and connected at intervals by transverse rails, which carry the canes to the factory and enable the labourers to cover without loss of time or energy the considerable distances which separate the centre of a large estate from its outlying portions. Though the large estates have contrived to hold their own, they still used to complain at the outbreak of war of the low prices caused by the competition of beet sugar; and they then cherished a hope, which, however, was not very sanguine, that they would benefit by the projected abrogation of sugar import dues in the United States, which are the chief market for their produce. Second grade or residuary sugar is used, as in British Guiana, for the manufacture of rum, and is also exported to Holland for the use of confectioners. Though the production of sugar in the colony is favoured by its climatic conditions and the fertility of its soil, labour is scarce, and, so far as available, is costly. Should those conditions continue to coincide with low prices in the world's markets no great

¹ The distribution by districts of agricultural production is shown in the Appendix, Table I.

² *Koloniaal Verslag*, 1916.

increase in the export of sugar can be looked for from Surinam; but a considerable expansion might be witnessed if supplies of capital and labour were assured by a reasonable certainty of remunerative prices.

Cacao, which provides 20 per cent. of the exports, ranks next in importance to sugar among the agricultural products. Owing to the ravages of disease it has declined sharply, and the average annual export, which amounted to 45,456 cwt., worth £134,490, in the period 1900-4, fell to 33,041 cwt., worth £94,522, and 31,622 cwt., worth £77,954, in the two succeeding quinquennial periods. Witch-broom disease and the disease known as *versteening*, or hardening of the pods, have been very virulent, and have reduced the yield by some 75 per cent., so that in 1904 production reached the lowest point touched for thirty years. The financial consequences of this failure led the estates into a vicious circle; planters drawing no income from their property could not afford to employ labour, and estates bereft of labour, where the trees were left unpruned and diseased refuse cumbered the ground, acted as prolific centres of infection. Neither the causes of the disease nor cures for them could be discovered, and the crop once so profitable seemed likely to go out of cultivation in the colony. The Government then took action, and in 1907 it was reported that under the direction of the Agricultural Department an experimental treatment had been applied with success on seven estates. The treatment consisted in a drastic pruning of the trees, of which only the trunks and principal branch stems were left; the cuts were then tarred over, the tree syringed with a solution of sulphate of copper, and the refuse removed and burnt. Trees thus treated were found to throw out a great number of vigorous branches, which bore large quantities of healthy pods; the new growth was free from witch-broom disease, and the proportion of hardened pods, which had risen to as much as one-half on the untreated fields, was found not to exceed 1 per cent. on the treated

areas. Moreover, it was estimated that within two years the increased yield thus obtained would more than suffice to cover the cost of treatment and the loss of crop by lopping; and, in fact, an estate which had produced nothing in 1905 and only 77 lbs. to the acre in 1906, yielded no less than 515 lbs. to the acre in 1908. In 1912 a drought of exceptional intensity exercised an unfavourable influence on the estates, especially on the small ones where drainage and irrigation are defective; but in 1914 it was officially reported that cacao was again thriving, the planters being more and more convinced that the witch-broom and pod-hardening diseases could be successfully fought, and that a recovery of the former yield and the former profit was going to revitalize the industry.

In the treatment of the crop when harvested few estates now follow the old practice of drying it in the sun, and the steam drying apparatus which many of them have installed ensures independence of the weather. Two small factories in Paramaribo, equipped with power plant, manufacture chocolate for local consumption.

Coffee seems likely to become an important crop in the near future, but at present it accounts for scarcely 2 per cent. of the total exports. In the period 1905-9 2,795 cwt., worth £6,848, were sent overseas yearly, and in the following quinquennial period 4,215 cwt., worth £13,935. Brought from Java about 1700, coffee was at one time a staple of the colony, but by the beginning of the present century it had suffered a serious decline. It has been said that no satisfactory cause has ever been assigned for this diminution, since Arabian and Liberian coffees grow well in Surinam, and enjoy a virtual immunity from insect pests and disease; but the reason lies in the scarcity and dearness of labour, which have hampered the agriculture of the colony in so many ways. Coffee is now grown on most estates, including those primarily devoted to other products, and it is coming rapidly into favour among the

small holders. "Surinam" or Arabian coffee has a good reputation in Europe, and in the United States there is a large market for the inferior Liberian variety.

In 1913 there were four factories for dealing with the beans, and in 1916, when the young plantations were looking full of promise, and high prices led to great activity, four new factories were established.

Bananas.—An interesting but unsuccessful experiment in subsidized agriculture has had for its object the growth of bananas for export. The venture was begun in 1906, when the Government entered into contracts with the United Fruit Company of America on the one hand, and with the Surinam planters on the other. The latter undertook that they would plant some 7,000 acres by instalments in three years, and would reserve their crop for exclusive sale to the Government; in return, advances at the rate of about £12 an acre in the first year and £6 an acre in each subsequent year of planting were to be made to them on the security of mortgages of the estates redeemable out of the anticipated profits of the venture. The Fruit Company, a concern controlling the importation of fruit into the United States, agreed to purchase all the available fruit, which was to amount to at least 20,000 bunches a fortnight, and to institute a service of steamers for its carriage from Paramaribo to New York. Provisions very favourable to the company were inserted regarding lading, delivery, payment of dues, &c., and prices were fixed. No more than 36 hours' notice was to be required for cutting and delivering the fruit, which necessitated the use of productive land in proximity to the port of shipment, an efficient organisation, and a not inconsiderable labour force, and prices involved a rigorous curtailment of transport and management expenses—conditions which precluded the participation of the small grower, and could scarcely have been complied with at all, had not the control of the industry been vested in the State. The Gros Michel variety was selected for cultivation,

and most of the plants were grown on lands abandoned from sugar cultivation in former times or more recently released from cacao cultivation by reason of witch-broom disease. For a time all went well. There were 2,300 acres ready in 1907, towards the end of which year the preparation of a further area was put in hand, and by the end of the following year 7,600 acres, or more than the stipulated area, had been put under cultivation, some of it independently of financial assistance from the Government. In that year 219,686 bunches were shipped, and in the two following years 646,017 bunches and 654,180 bunches. By this time, however, Panama disease was working havoc on the estates. Whether, as some people believed, because it was naturally virulent in Surinam, or whether, as others asserted, because it was favoured by too close planting, faulty cultivation, insufficient drainage, and neglect of expert advice, the disease progressed with fatal celerity. First noticed in 1907, it did great damage in 1908, and in the course of the two following years every plantation was attacked, and the fields could no longer be kept under cultivation. The Government was now compelled to refuse further advances on the original terms and to break its contract with the United Fruit Company, for deliveries were going from bad to worse, and the export, which had been 654,180 bunches in 1910, fell to 387,516 bunches in 1911, 213,999 bunches in 1912, 136,978 bunches in 1913, and 73,222 bunches in 1914. In the meantime there had been introduced a variety known as the Congo banana, which was believed to be immune from disease, and the Fruit Company volunteered to maintain its steamers for a short time longer to see if the Congo plants would produce a crop fit for export. This, however, in the opinion of the company, they failed to do; they ripened irregularly, and were inferior to the Gros Michel in colour, flavour, and keeping qualities; and the company, unable to handle an unmarketable product, withdrew its steamers.

The planters now had to choose between giving up their enterprise altogether or finding new markets and providing other shipping facilities. The prospect before them did not seem to encourage the adoption of the latter alternative, for they could not grow the Gros Michel variety; the Congo banana, which they could grow, had been pronounced unsaleable; and the banana in demand in Europe was a thin-skinned sort, easily bruised, difficult to ship, and already produced in large quantities nearer home. On two occasions in 1912 shipments of the Congo fruit to Liverpool had been made in a vessel belonging to Booker Bros., McConnell & Company, of Georgetown, and important groups both in Amsterdam and in Rotterdam had begun to consider the possibilities of a European trade. The Amsterdam group eventually decided that it would not touch the business without the co-operation of the Fruit Company, which could not be obtained; but the Rotterdam group, consisting of Wambersie & Son and Van Nievelt, Goudriaan & Co.'s Stoomvaart Maatschappij, entered into negotiations with the planters in reliance upon a promise of monetary assistance from the Government.

Before the war, a part of the produce of the banana fields was sold to a drying factory at Kroonenburg, which exported 1,239 cwt. of dried bananas, of the value of £1,310, on the annual average of the years 1910-14.

Rice.—The introduction of the coolie has created a demand for rice which in the past has been satisfied in the main by importation, but is now being met in growing proportions by domestic production, the coolie himself being an expert in its cultivation. From 1900 to 1914 the mean import was about ten million pounds a year, and it averaged as much as thirteen million pounds in the years 1910 to 1912; but in 1916 home production had increased so largely that the import fell to about five and a half million pounds. Many parts of the colony are well suited for rice-growing,

and crops are healthy in the main, though attacked by a leaf disease in the Para district. Most of the rice is grown on a small scale by British Indians, who have settled by the side of the railway, along some of the river banks, and in the Nickerie district. The locally grown product is a fine rice of excellent quality, greatly superior to the imported article. The five mills which the colony possesses are small affairs, and are able to work only spasmodically.

Rubber.—A wild rubber, indigenous to the country, is found in the forests, but it is of poor quality and small value. Para rubber was first introduced soon after the beginning of the present century as a result of the cacao failure, and excited a good deal of attention at the time of the "rubber boom," when 800,000 more seeds were ordered from Ceylon. The cacao and coffee soils of the country are said by competent authorities to be well suited for the growth of *Hevea braziliensis*, but at present the export of rubber is negligible. The trees do not come to maturity as rapidly as in the East Indies, and production may be expected to increase as they get older, although in 1913 many planters who owned mature trees found it impracticable to tap them at the prices which then prevailed. Rubber has been mostly planted among bananas, but in one case a mining concern is growing 40,000 rubber trees on its land.

Other Crops.—Among other crops ground provisions are the most important, but coconuts, maize, cotton, and fruit are being grown on a small scale or are in an experimental stage. Ground provisions are grown to some extent on the plantations for the use of the labour force, and are largely produced on the small holdings for general consumption. Coconuts are found chiefly in the Coronie district, but heart rot has caused trouble there, and many palms have had to be destroyed. The disease is said to be not really dangerous, if proper methods of cultivation are followed, but owners have omitted to take adequate precautions, and the output remains stationary at some

800,000 nuts a year. In 1913 a concession of about 1,300 acres at Galibi, at the mouth of the Marowynne River on the Dutch bank, was acquired by the Tropical Exploitation Syndicate. Maize has become progressive since the establishment of an export trade to Curaçao and other West Indian islands; the area planted with it increased largely in 1913, and a much greater output was expected in succeeding years. The cultivation of oranges is also increasing, and some small experimental shipments have been made; but the fruit is small and of indifferent quality. Many delicious fruits might be grown in Surinam and excellent jams produced, but this branch of the industry is so utterly neglected that fresh fruit is very difficult to obtain. Cotton, once a product of great value, has gone out of cultivation altogether. In 1917, however, the Director of Agriculture instituted an enquiry into the possibilities of reviving its growth, and as a result it was determined to conduct a small experiment. The site selected was on the abandoned plantation of Lijdenshoop on the Malappua creek, where many cotton plantations flourished in bygone days. Other recent experiments with sisal hemp and tobacco have proved disappointing; neither are annatto and indigo any longer grown.

Live-stock.—In the old days of agricultural prosperity excellent cattle used to be reared on the estates, but stock-raising and dairy-farming are not now regarded with much favour. Obstacles to their success are found in the smallness of the population, the scarcity and costliness of labour, the difficulty of transport, and the want of good natural pastures. The clays grow coarse grasses, and in wet weather become swamps of mud; and the sandy belts, where better grasses grow, get scorched in times of drought. Some use is made of the savannahs in the Nickerie district, but frequently the so-called savannahs are mere swamps, overgrown with useless grasses, infested with flies, and generally unfit for grazing purposes. Good pasture is especially scarce in the neighbourhood of Paramaribo, where alone there is any considerable

demand for milk. As a result of the absence of pastoral development milk, butter, and butcher's meat are imported in considerable amounts. On December 31, 1915, the colony was officially credited with 219 horses, 651 asses, 184 mules, 8,529 cattle, 183 sheep, 2,845 goats, and 2,180 swine.

(b) *Forestry*

The forest industry is of much greater importance than the pastoral, and on the annual average of the period 1900-14, its exports consisted of balata to the value of £124,650 and timber to the value of £5,520, together amounting to rather over a quarter of the total export trade. Balata, a gum obtained by bleeding the balata or bullet tree, is a good substitute for gutta-percha, and the scarcity of that article during recent years has contributed to the striking expansion which has taken place in the balata-collecting industry in Surinam. From 1900 to 1909 the exports of balata were worth on the average about £57,000 a year. In the period 1910-14 they rose to an annual average of £258,654. Despite this considerable increase, however, the condition of the industry is not altogether satisfactory, and a Commission has lately been appointed to look into it. To begin with, balata-collecting is hampered by the want of means of communication in the interior; it is sometimes impossible to market balata which has actually been collected, and appreciable amounts are habitually lost by the capsizing of boats in the rapids and by other accidents of travel. Then the scarcity of labour and the heavy advances formerly paid to workmen have been prejudicial to success; but it is hoped that a new law, which controls the conditions of working and limits advances, will bring the labour of the industry under proper control. Most serious of all is the lack of supervision in the forests and the futility of all efforts to enforce the regulations which are supposed to govern the industry. Bleeders are paid according to the amount of dried balata which they bring in, and in the absence of

effective control they are free to ignore the Government regulations as to the manner in which trees ought to be bled and to extract as much as they can from each, regardless of consequences to the tree. Thus, although balata trees are found over immense areas in the colony, and constitute one of its most valuable assets, there is a danger that the whole industry will eventually collapse for lack of ordinary care and attention.

As regards timber-getting, the resources of the country are almost inexhaustible, and the forests contain enormous quantities of valuable timber, displaying all varieties of colour, weight, and texture. Cedar, mora, silverbally, balata, wallaba (*bijlhout*), crabwood, a wood called *manbarklak*, greenheart, purpleheart, brownheart, locus or Surinam teak, and letter-wood are among the more important timbers. Balata is found mostly in the neighbourhood of the savannahs, wallaba on the large open spaces near rivers and creeks, *manbarklak* along the great rivers, and brownheart in the hill country. Balata, with its lofty, columnar, branch-free stem and its fine colour, has a reputation in European markets; and cedar, used for cigar-boxes, is an esteemed export. Brownheart, very strong and durable, and handsomely coloured and marked, is suitable for building and for cabinet-making. *Manbarklak*, with its exceptional durability and its capacity for resisting worms, is a valuable wood for piers, locks, and other purposes involving immersion in water, and a certain amount is used in Europe in such ways. Greenheart is also a durable wood, and is employed for bridge-building in the colony; but Surinam greenheart is said to differ from, and to be decidedly inferior to, the remarkable wood of the same name which is one of the most valuable products of the forests in British Guiana. Such at least would appear to be the result of tests carried out in Europe, but in official experiments recently conducted in the worm-infested waters of the Surinam both woods alike were affected in the soft parts and to no great depth. In those tests mora and purpleheart were completely eaten

away, but *manbarklak* was practically untouched. Crabwood is a good substitute for mahogany, possessing the merit of being more easily worked; and many of the heavier and darker woods are good for furniture-making. The most singular of the ornamental woods is letter-wood, so called from the dark markings across the grain which resemble irregularly formed letters. It has long formed a regular article of export, and good pieces command high prices. A greater use of native woods for building and other purposes in the colony would be economical in the end, since they resist dry-rot, insects, and moisture; but cheap white wood, pitch pine, and American lumber are imported in consequence of their cheapness, of their greater ease of working, and of the irregularity in the supplies of local timber. Mangrove bark and other tanning materials, oils, turpentine, resin, balsam, and tonka beans are also among the products of the forests.

The valleys of the Surinam, Saramacca, Commewyne, and Coppename rivers are the chief centres of the timber industry, and these and other streams provide a convenient means of transport, so far at least as their lower reaches are concerned. In some districts, such as the Para, the timber is worked into planks, posts, &c., before being sent to market, but for the most part the unworked logs are floated down the streams. Some of the heavier sorts, which will not float in water, are dealt with by tying them to the lighter sorts or by lashing them to canoes. Transport from the place of felling to the river is still very primitive, consisting as it does of human haulage of the timber over forest tracks floored with short sleepers; and the application of such modern contrivances as the light railway and the cable would be advantageous. The difficulties of land transport are enhanced by the dispersal of the trees, hardly any of which are gregarious in their habits of growth, and their diffusion also involves a less efficient use of labour, larger costs of control, and greater difficulties in marketing a substantial amount of one sort of wood.

Impressed by the insignificance of the present export of timber in comparison with the potentialities of the forests, a firm trading in Paramaribo and Amsterdam have lately been at some pains to create a market for Surinam woods in Holland and Belgium. They succeeded in persuading the authorities to try some of them in public works, and in private quarters they got others used for joinery, cabinet-making, and parquet-flooring. Workpeople unfamiliar with the peculiarities of exotic woods found some difficulty in handling them, but this was an inconvenience which experience would have remedied, and the real obstacles to success have been the smallness and irregularity of deliveries, due to the incurable irresponsibility of the Boschneger, who monopolizes the labour supply of the industry. In his intense love of personal freedom the Bush negro prefers a florin earned with independence in the forest to the winning of much larger sums under the orders of the white man on the goldfields, and to that extent he is well suited to the timber trade; but he is utterly erratic and untrustworthy, and no substantial European connection can be built up so long as he persists in bringing in his goods months or even years behind the time stipulated for delivery.

In 1913 there were 74 timber concessions, 30 of which were held in the old terms of 10c. a hectare (rather less than 1*l.* an acre), and 44 on the new terms of 2c. a hectare with royalties on the timber felled. Concessions are now no longer granted on the old terms. Licences to explore for timber used to carry with them preferential rights to grants of concessions, but they were found to bring large areas into speculative hands, and in 1916 a new model licence was drawn up, so framed as to confer no rights which might be pernicious in their operation.

There are four saw-mills at Paramaribo and three on the plantations, an establishment for the preparation of planed planks, &c., and a furniture factory equipped with a power plant. A company has lately been formed to start the manufacture of paper pulp,

for which the resources of the country offer great possibilities, and in 1916 a large area was let to the Surinam Extract Company, whose purpose is the extraction of tanning material from mangrove bark.

(c) *Land Tenure*

Land tenure does not call for any detailed remark. Most of the larger plantations date back one or two centuries and are freeholds. As has already been said, many of these have been abandoned by their former owners, and the occupation by squatters of derelict estates has necessitated a general measure for the verification and consolidation of the title to real property in the colony. The Government grants small holdings on terms either of lease or of sale. Within the limits of the settlements holdings are leased, at first for a peppercorn and afterwards for a more substantial rent. Outside the settlements plots of land are granted free of annual charges but subject to improvement conditions. If the conditions are fulfilled, the freehold is conveyed to the occupier. If they are not fulfilled, the occupier may be left in possession as a tenant, or, in case of gross neglect of the conditions, may be evicted. Balata-collecting, timber-getting, and gold-mining areas are held for terms of years under concession from the State.

(3) FISHERIES

The sea, the rivers, and the swamps of Surinam abound in fish, but as an industry fishing has no importance, and foreign fish is imported in large quantities. According to the official returns, 183 persons and some 40 boats, most of them stationed at Paramaribo, were occupied in fishing in 1915. Fishing alongshore and in the mouths of the rivers is carried on for the most part in large open boats, manned by 8 or 10 men, working with nets and trawls; but line-fishing is also practised. An attempt to develop deep

sea fishery has been made by a company formed at Paramaribo in 1909-10, which acquired two schooners, and sent them to work on the banks about 70 miles off the coast; they carried a supply of ice sufficient for 10 or 12 days, and on their return to port their catch was transferred to the refrigerating chamber attached to the ice factory at Paramaribo. Presumably, however, the business was unremunerative, for the company discontinued it in 1913. Boschnegers, Indians, and others fish from small boats and canoes in the upper rivers.

(4) MINERALS

Gold is found over large areas in the colony, and forms an important item in the export trade, the amount annually shipped overseas being worth about £100,000, or 20 per cent. of the total exports. After the failure of several attempts to find gold in the seventeenth and eighteenth centuries, nothing further was done until about 1860 a prospector trained in the Australian bush brought in samples which, although in themselves of small value, pointed to the existence of a field; but the company which he formed in New York failed, like its predecessors, and its concession was declared forfeit. Meanwhile, however, supported by the course of events across the Marowynne, where Cayenne was becoming a gold producer, belief in the mineral possibilities of Surinam was growing; licences for exploration and concessions were being applied for; and in 1875 export opened modestly with the shipment of 79 ounces of the metal. From that time till the end of 1916 the total production has been 1,013,034 ozs., of an estimated value of £3,616,119. The years 1905 to 1909 have been the most prolific, and the highest production recorded occurred in 1908, when the output was 38,895 ozs., worth £138,116. Since then production has on the average been some 10,000 ozs. a year less than this figure.

The industry has passed through various phases. Here, as in the other Guianas, the largest proportion

of the gold won is obtained by alluvial washing on the placers by the "sluice" and "tom" methods. In the alluvial deposits gold is found in the channels of present or former streams, and is usually contained in a layer of clay under pebbles and gravel. This clay is puddled in long or short wooden boxes, known as sluices and toms respectively, where the stones are picked out, the dirt washed away, and the gold captured. In Surinam these methods of extraction were followed exclusively until 1897, but about that time some of the hand-worked placers began to be unproductive, and many of them were taken over by companies, often at high prices, with a view to their exploitation by the mechanical arts of excavating, quartz milling, and dredging. Of these companies nearly all failed, handicapped as they were by over-capitalisation, the burden of an excessive purchase price, the difficulties and expense of transport, and inexperienced and incompetent management. In the opinion of a trustworthy authority, the holder of an official engineering post in the country and the author of a learned work upon the industry, mechanical working is unsuited to most alluvial deposits in Surinam, the formation of the strata not admitting of its profitable application, though hand-working might perhaps be aided by a mechanical extraction of the soil.

As a result of the liquidation of most of the companies the industry entered upon a new phase in 1902, the men who had been employed as managers and workmen taking underleases from the owners on the footing of paying them a percentage—usually 15 per cent.—of the value of their output; and in a short time all but a few placers were in the hands of these men, who correspond in Surinam to the "pork-knockers" of British Guiana and the "marauders" of Cayenne. That the consequences for the industry were important is apparent from the figures of production, which, after being on the downward grade for years, reached their zenith within a few years of the establishment of the new regime. Yet it may be questioned whether the

altered circumstances of the industry are such as to promote its permanent welfare. The man who is his own employer works more cheaply than the company and is more industrious than the company's salaried servants; he can thus wring a profit from less promising ventures, which the best conducted company fails to handle with advantage; but he lacks capital, and it is doubtful how far the circumstances of the gold-mining industry in Surinam admit of a hand-to-mouth existence devoid of capital reserves. The small man cannot stand the strain of failure, or even of hope deferred. If, as may well happen, it is so wet that his diggings are flooded out or so dry that he has no water for gold washing, his takings vanish, but his expenses continue. When his claim is worked out he must prospect for a new one, which is costly, and on new ground success, even when it is won, is to be attained only after expense and delay. Small though his demands are, he is seriously embarrassed by the difficulty and cost of transport. A man who has a prosperous concern will lay in ample stocks of provisions and supplies when the rivers are in water and transport is at its cheapest, but the credit of the small man does not permit of this; he must buy as and when he can pay; and often he is obliged to bring up his supplies in unfavourable conditions, which greatly enhance the cost.

By these difficulties of transport the whole industry is, indeed, dominated. Beyond the limited gold zones which are now served by the railway it is not only almost impossible to deliver machinery to the placers, but the mere carriage of men, tools, and food is often a cause of anxiety and always an occasion of expense. In normal conditions the journey by river from Paramaribo to the more distant goldfields takes from 9 to 14 days, and is as long again in times of drought. For every man at work on these fields about half a ton of provisions, implements, &c., must be carried up, at a cost of at least £4 or £6 a ton. From figures published by the *Compagnie des Mines d'Or de la Guyane*

Hollandaise, operating on the Awa, and then employing 260 hands, it appears that transport expenses amounted to 13 per cent. of the value of total production over a period of four years. If to this be added the local and superficial occurrence of the precious metal, careless prospecting, a labour force that cannot be depended upon, inexpert management, an injudicious selection of machinery, and climatic conditions inimical to scientific enquiry in the bush, the failure of many mining ventures will occasion no surprise. Anywhere in Guiana a sensational "find" is at any time possible, and future discoveries may transform the whole position; but the prospects of the gold-mining industry in Surinam cannot be thought to be very bright in the conditions which now prevail.

The total production of the different districts since 1880 has been approximately as follows:—Upper Surinam, 474,413 ozs.; Lawa (Awa), 201,559 ozs.; Saracca, 200,217 ozs.; Marowyne, 104,478 ozs.; and other districts, 200 ozs.¹

Mining is carried on under concession on land belonging to the State. Rents were originally fixed at 10c. a hectare (rather less than 1*d.* an acre), but were revised in 1882, being then raised to 25c. a hectare (about 2*d.* an acre) in the third and fourth years, and afterwards to 50c. A tax of 5 per cent. on gold exported, imposed in 1879, was in 1894 converted into a due of 7c. a gramme on gold won. Various regulations are in force relating to the grant of concessions and to dealings in gold. The minimum area of a concession is fixed at 200 hectares (about 500 acres), but there is no maximum limit, and this circumstance has favoured large speculative holdings. Exploration licences, previously issued free, were subjected to a due of 1c. a hectare (about 1*d.* for 12 acres) in 1903. In that year it was also decreed that thenceforward concessions and licences might be acquired only by Dutch subjects, by residents in Holland and

¹ *Koloniale Verslagen and Encyclopædie van Nederlandsch West-Indië.*

Surinam, and by companies established in one or other of those countries.

Bauxite.—In 1917 a company to search for and work bauxite was established under the name of the *Surinaamsche Bauxite Maatschappij*. The company has acquired a large concession and taken tentative steps. Important deposits are known to exist on the Cottica, and work on a small scale is in progress at Mungo. In other districts where prospecting has been carried on the results have so far been negative.

Other Minerals.—Diamonds have not yet been found in payable quantities in Surinam, though the conditions resemble those of British Guiana, in which the stones are found. No other stones of commercial value seem to exist, and iron, lead, and manganese do not occur in workable deposits. Some quicksilver and cinnabar ores have been discovered on the Marowyne.

(5) MANUFACTURES

Circumstances have been adverse to the development of manufactures, which are few and unimportant. An agricultural colony from its earliest days, Surinam has offered few opportunities for the creation of industries unconnected with agriculture; little or no skilled labour has been available; the competition of Europe and the States has had to be faced; and industrial development has received no encouragement. Paramaribo has a small but well-found ice factory, which lets space in its refrigerator for the storage of meat, fruit, fish, &c., and is interested in the sale of iced drinks in the city. There are eight factories of lemonade and aerated beverages, seven at Paramaribo and one at New Nickerie; three small match factories, four printing presses, one cigarette factory, a gas works, two small soap factories, three steam bakeries, and two tanneries. Two of the match factories are worked by steam in the approved modern style, and their match stems and boxes, made of colonial woods, are said to

possess all the good qualities of the European article; but the demand is not very great, and, to preserve its relation to supply, operations have to be suspended from time to time. The gas works, started in 1909, belong to the Nederlandsch-Indische Gasmaatschappij of Rotterdam, and have been worked with good results. The streets of Paramaribo are now lighted by their product, and the number of their subscribers is increasing. The soap factories have been at much pains to produce a sound article, but they have not yet appreciably affected the import of soap. Of the tanneries, one is a small affair at New Nickerie, the other is a recent revival of a former venture which failed. This tannery was first started in 1903, but came to grief because the tanning material it employed—mangrove bark—imparted a red tinge to the leather, which could not then compete with imported leather. The product was in itself good, however, and the high prices occasioned by the war have prompted a repetition of the experiment. Straw hat plaiting is another recent venture. A course of instruction in the art was begun by private enterprise in 1913, and the ten pupils with whom the course opened had increased to fifty by the end of the year. Straw imported from Curaçao being disappointing, a large number of plants yielding a good straw have been put out in the colony, and it is hoped that straw hats may become an article of export in a not too distant future.

(C) COMMERCE

(1) DOMESTIC

Domestic commerce is for the most part in the hands of Portuguese, Chinese, British Indians, and Armenians, and the participation therein of the native population is undergoing a continuous decline. Unlike their trade competitors of other nationalities, the Chinese work in unison to a considerable extent, the town businesses being worked in intimate association

with the shops on the estates, which are rented from the proprietors, and frequently enjoy a monopoly of the trade of the locality. The character of the general commerce of the country has been deeply affected by the establishment of direct and rapid communication with Europe and the United States. "In the days of sailing ships, or at any rate of irregular services," said the report of a Commission, "the import houses of the Colony were obliged to hold large stocks, but this has been profoundly modified by the regular steamship connection, which has promoted both tenders by agents and small deliveries. Real import houses, exclusively engaged in wholesale trade, have ceased to exist. The typical concern is now a shop with branches operating in different quarters of the capital or in different places in the colony. It gets its goods direct from Europe or North America, and retails them afterwards, making semi-wholesale sales to small shopkeepers and tradesmen. In the shops there is relatively little specialisation; shops for groups of articles are found here and there, but on the whole nondescript collections of goods are offered for sale in the mass."¹ A recent annual report² adds that a pronounced tendency is apparent for the import trade to pass into the hands of foreign manufacturers, the consequence of the appearance of travellers and agents, who book orders direct, a process not entirely advantageous to the trade of the country. It has sometimes been complained that all the capital is in the hands of a few people, who strangle competition; that there is much direct importation by the Government and others, to the detriment of the Surinam merchant; and that the latter, who is obliged to buy on short credit in Europe, is expected to give long credit to his colonial customers.

In 1915 there were 33 exporting houses. Of these, 12 were companies, 5 were firms, 2 were estates, and 14 were individuals. The companies included such well-known concerns as the Surinaamsche Bank, the

¹ See *Encyclopædie van Nederlandsch West-Indië*, p. 348.

² *Koloniaal Verslag*, 1914.

Curaçaosche Handelmaatschappij, and the Nederlandsche Handelmaatschappij.

There is no chamber of commerce in the ordinary sense of the term, but about ten years ago the Governor constituted a semi-official Kammer van Koophandel en Fabrieken to advise the Government on commercial questions.

(2) FOREIGN

(a) *Exports*

Quantities and Values.—Exports have shown a fairly steady expansion during the period 1900-14, the annual averages for the periods 1900-4, 1905-9, and 1910-14 being £383,464, £461,045, and £668,281 respectively (see Appendix, Table II). At the beginning of the century they were declining, and fell from £461,738 in 1900 to £307,702 in 1904; but the downward movement was then arrested, and from that time till the outbreak of war they expanded regularly with the exception of 1912, a year of drought. On the average of the whole period they are less than the imports by about £70,000 a year, but they have exceeded them on the average of the last quinquennial period.

The principal articles exported are sugar, which accounts for $28\frac{1}{2}$ per cent. of the total exports on the average of the period 1900-14; balata, 25 per cent.; gold and cacao, each 20 per cent.; and coffee, rum, bananas, and timber, each between 1 and 2 per cent. Sugar, balata, coffee, bananas, and timber show increases, while cacao has diminished, and gold and rum have fluctuated. Among the less important exports increases have occurred in hides and isinglass, and in recent years there has been a small export of maize and rubber. Agricultural products account for 54 per cent. of the total exports, forest products for 26 per cent., and mining products for 20 per cent. The quan-

titles and values of the principal exports will be found in Table III of the Appendix.

Countries of Destination.—The United States, which have taken 41 per cent. of the export trade on the average of the years 1900-14, are the colony's largest customer; Holland has taken 38 per cent.; British Possessions have taken $16\frac{1}{2}$ per cent.; and France has taken $3\frac{1}{2}$ per cent. (see Appendix, Table V). Exports to the United States are, in fact, larger than they appear in the official statistics, because a part, undetermined but not inconsiderable, of the exports to British Guiana are passed on to America. There has been a small relative increase in exports to Holland, and a small relative decline in exports to the United States. Particulars of the export to the several countries are given in the Appendix, Table VI.

(b) Imports

Quantities and Values.—During the period 1900-14 the mean of the imports has been £576,806. A slight tendency to increase is apparent from the annual averages of the three quinquennial periods, namely, £552,211, £566,448, and £611,760 (see Appendix, Tables II and IV).

The chief articles imported are cotton, woollen, and linen manufactures, which account for 14 per cent. of the total imports; flour and grain, 9 per cent.; meat, bacon, and tinned provisions, $8\frac{1}{2}$ per cent.; rice, 7 per cent.; beer, wines, and spirits, 6 per cent.; machinery, iron, and iron manufactures, 6 per cent.; gold, 4 per cent.; groceries, 4 per cent.; haberdashery, boots, and hats, 4 per cent.; and oils and butter, each 3 per cent. The imported gold comes from French Guiana, which ships some of its output through the Dutch colony. The import is increasing in the case of cottons, &c., flour and grain, and oils; is decreasing in the case of liquors and gold; and is stationary or fluctuating in the case of the other imports mentioned.

Countries of Origin.—The colony buys most from Holland, which has supplied $56\frac{1}{2}$ per cent. of the im-

ports on the average of the period 1900-14; the United States have supplied 23 per cent.; British Possessions have supplied 14 per cent. (the United Kingdom 5 per cent., and British Guiana 9 per cent.); and French Possessions (mainly French Guiana) have supplied 5 per cent. Trade with Holland, the United States, and British Guiana shows actual and relative increase; with the United Kingdom and French Guiana it shows actual and relative decline (see Appendix, Table V). It is to be observed that the official statistics relate only to the countries whence goods are shipped, and are therefore not a true indication of countries of origin. Thus, a large proportion of the goods shipped from, and so credited to, the Netherlands, especially haberdashery and cottons, is of British or German manufacture; the dried and salt fish credited to the United States is largely of British North American origin; and much American trade is credited to British Guiana and West Indian colonies, where trans-shipment is effected. The decline in the trade with the United Kingdom is more apparent than real, the discontinuance of a direct steamship connection with Great Britain having enlarged shipments through Holland and British Guiana; but the trade does seem to be diminishing in fact, there being an increasing demand in Surinam for shoddy goods which Great Britain does not readily supply. As in the case of exports, the share of British Guiana in the import trade is mainly a matter of trans-shipment, and the imports from French Guiana are gold and balata sent in for despatch to Europe. Particulars of the imports from the several countries are given in Table VII.

(c) Customs and Tariffs

For the purposes of the import dues imposed in the colony goods fall into three classes, namely, goods charged with *ad valorem* duties, goods charged with specific duties, and goods exempted from duty. The normal duty is 10 per cent. *ad valorem* on the net in-

voice value of the goods, augmented by 20 per cent. Specific duties are moderate in amount in the case of foodstuffs, groceries, &c., but are larger—and especially so since the increase in 1907—in the case of such articles as liquors, tobaccos, matches, opium, and gunpowder. The free list includes machinery; building materials; base metals; coal; cattle, asses, and mules; raw materials for agriculture and industry, such as manure, plants and seeds, coarse salt, sacks, and staves for vats; and vessels and boats.

(D) FINANCE

(1) *Public Finance*

The local revenue is derived from taxes on property, the gold output, &c.; rents and royalties payable under concessions; import and excise dues and some other indirect taxation; and the receipts of the postal, railway, and steamer services. Deficits in the colonial budget are made good by the home Government with subventions, the amount of which varies from year to year, as both the revenue and the expenditure of the colony fluctuate; on the average of the years 1900 to 1908 subventions averaged £45,526 annually. During that period the average annual revenue and expenditure were as follows:—

(a) <i>Revenue</i>			£
Import duties ... ..	...	...	97,019
Excise, &c. ... ..	...	...	14,638
Rents and dues under concessions, &c. ... ..	...	...	14,510
Railway and steamer services' receipts ... ..	...	...	11,963
Property taxes, &c. ... ..	...	...	7,779
Tax on gold ... ..	...	...	5,445
Miscellaneous ... ..	...	...	114,630
Subvention ... ..	...	...	45,526
Total			£311,510

(b) *Expenditure*

	£
Railway, steamer service, light-ships, telephones, &c. ...	74,991
Public works ...	71,374
Education, relief, medical service, &c. ...	55,610
Financial administration ...	35,089
Justice and police ...	29,600
Pensions, half-pay, &c. ...	20,579
Government secretary, Colonial States, &c. ...	15,391
Immigration and colonization ...	5,890
Miscellaneous ...	2,986
Total ...	£311,510 ¹

(2) *Currency*

The currency of Surinam is the same as that of Holland, that is to say, 12 florins or gulden = £1 at par, 1 fl. = 1s. 8d., and 5 c. = 1d. The metric system is in general use, but locally the Rhyndland foot (=12 $\frac{3}{8}$ English inches) and the Flemish ell (=27 $\frac{1}{8}$ English inches) are in use.

(3) *Banking*

The Surinaamsche Bank, a private institution, was founded in 1865, with a capital, in fully-paid shares of 875 fl. and 175 fl., of one million florins, which in consequence of losses was reduced to 700,000 florins in 1877. The head office of the bank is at Amsterdam, and there is a local board at Paramaribo—an arrangement which augments administrative expenses. Nevertheless, their results have been favourable on the whole, and except in their early days they have paid good dividends.² On December 31, 1914, their paid-up capital was 700,000 fl., their reserve 300,000 fl., their note circulation 1,577,000 fl., and they held 1,211,049 fl. on deposits, current accounts, &c.

¹ *Koloniale Verslagen*.

² Nearly 8 per cent. on the average of the years 1908-14, according to the *Banking Almanac*, 1916.

The savings bank started by the Surinaamsche Maatschappij van Weldadigheid (Surinam Charity Organisation Society) was the first recorded attempt to encourage thrift in the colony by means of a savings bank, but its career was not a long one. It was followed by the Koloniale Spaarbank, established in 1879, and put into liquidation on April 1, 1904, when the Koloniale Postspaarbank began operations. Both these institutions have done useful work and promoted the best interests of the country.

There are several small loan banks which assist the small farmer, but there is no proper agricultural credit bank, and all endeavours to found one have so far failed. The desirability of such an institution has been authoritatively asserted for the purpose of organising credit, of giving short-term loans to estates and business houses and promoting co-operation among small holders, and of acting as a central bank for the various co-operative loan institutions. When the Surinam budget was under discussion in the Second Chamber of the States-General in 1917, the belief was expressed that the banking system of the colony was in need of reform, and a motion was carried advocating a refusal to renew the expiring privileges of the Surinaamsche Bank, in order that the field might be clear for the organization of a satisfactory system of agricultural credit banks in the colony.

NOTE

The present condition and future prospects of Surinam are further discussed in *Introduction to the Guiana Colonies*, No. 134 of this series, pp. 14-16, in the course of a comparative sketch of the three Guianese colonies.

APPENDIX

(A) EXTRACTS FROM TREATIES

I.—EXTRACT FROM THE DUTCH OFFICIAL *STAATSBLAD*.

Minute explanatory of the boundary treaty between France and the Netherlands concerning the boundary between French and Dutch Guiana:—

“ In 1861 a mixed Dutch-French Boundary Commission was sent up the River Marowyne (Maroni) to examine its course. It arrived, after a very careful examination, at the point where the Marowyne is formed by the united waters of the Lawa and the Tapanahuni, at the conclusion that the Lawa is the main stream; but further up-stream, where the Lawa in its turn is formed by the united waters of the Litani and the Marowini Creek, it decided that the Litani was the main stream. The first-named conclusion was confirmed by the arbitral decision of His Majesty the Czar of Russia, May 13/25, 1891. As regards the second conclusion, later researches have caused doubts to arise as to its correctness. Meanwhile the question whether the Litani or the Marowini Creek is to be regarded as the main stream was the subject of an exchange of views between the French and Dutch Governments, and so was not submitted to the decision of the Arbitrator.”

II.—TREATY OF SEPTEMBER 30, 1915.¹

A joint conference was held at The Hague, April 25 to May 13, 1905, which drew up the project of a treaty, which assigned the Litani as the boundary in the upper river, and in the lower river the *thalweg*. This, again, did not give full satisfaction, as the *thalweg* followed at one time the right, at another time the left, bank of the river.

Finally, a treaty was drawn up, September 30, 1915, and ratified September 16, 1916, which settled all points of dispute.

“ ARTICLE 1^{er}.—Sur la partie du cours du fleuve Marowyne (Maroni) comprise entre une ligne ouest-est tangente à l'extrémité septentrionale de l'île néerlandaise Stoelman, dite Stoelmanseiland, au Sud, et une ligne ouest-est tangente à l'extrémité méridionale de l'île française Portal, au Nord, la frontière entre les colonies de Suriname et de la Guyane française est constituée par la ligne médiane des eaux ordinaires.

“ En conséquence, les îles situées dans cette partie du fleuve sont territoires néerlandais ou français, selon qu'elles sont situées en totalité ou du moins dans leur plus grande partie à l'ouest ou à l'est de la ligne médiane.

¹ *Staatsblad* for 1916, Nos. 304, 481.

“ Les îles Langa-Tabiti et Pacea-rebo ou Blakkerebo sont en totalité territoires néerlandais et l'île Guidala est en totalité territoire français. Ces îles ne sont donc pas soumises à la règle énoncée à l'alinéa précédent.

“ Les deux Gouvernements contractants s'engagent à respecter les droits acquis par les nègres Bosch et les Indiens habitant les îles du fleuve.

“ ARTICLE 2.—La navigation est libre dans les eaux de la partie du fleuve Marowyné (Maroni) délimitée conformément à l'article premier.”

(B) REPORT OF THE SURINAME STUDIE-SYNDICAAT

NOTE.—The Suriname Studie-Syndicaat, founded at The Hague in 1916, appointed a Commission to report upon the Colony. The members left Holland in February, 1919, and returned in the following July. Their report¹ (preface dated September, 1919) recommends that the Netherlands should lend money to the Colony for the following purposes:—

1. The improvement of roads, canals, &c.;
2. The immediate importation of immigrants for the plantations, which are retrogressing rapidly, owing to the shortage of labour;
3. The promotion of immigration and colonization by recruitment in Java; by establishing steamship lines especially for the transport of emigrants; and by the construction of irrigation works in districts intended for the settlement of immigrants;
4. The equipment of a modern Department of Agriculture, Industry and Commerce;
5. The extension of communications (in the Colony and with other countries) by means of roads, canals, wireless telegraphy, &c.;
6. The improvement of hygienic conditions.

The Commission considers that if the above-mentioned action is accompanied by:—

- (a.) The restoration of forsaken plantations to the State domains;
- (b.) The encouragement of foreign capital;
- (c.) A modification of the method of exploiting plantations;
- (d.) An extension of the capital of the Plantation Bank;

the Colony of Suriname will become financially independent of the home country in a relatively short time.

¹ *Suriname Studie-Syndicaat. Rapport der Studie-Commissie naar aanleiding van haar bezoek aan Suriname. Rotterdam, [1919].*

(C) STATISTICS

TABLE I.¹—DISTRIBUTION BY DISTRICTS OF AGRICULTURAL PRODUCTION, 1915

District.	Sugar.	Molasses.	Rum.	Cacao.	Plantains and Bananas.	Coffee.	Rubber.	Maize.	Rice.	Vegetables.
	Tons.	Galls.	Galls.	Cwt.	Bunches.	Cwt.	lbs.	Cwt.	lbs.	Cwt.
Nickerie	3,901	..	155,936	2,000	29,500	33	..	234	3,306,900	975
Coronie .. ..	..	..	..	678	30,200	27	..	189	4,189	266
Lower Saramacca ..	..	..	..	3,864	73,600	504	..	5,098	1,684,755	628
Upper Saramacca ..	..	..	..	81	3,100	2	..	173	20,062	110
Lower Surinam ..	..	..	..	3,072	54,800	1,456	2,022	3,553	1,846,573	1,756
Lower Para.. ..	..	..	..	642	73,500	21	1,362	13,766	2,334,010	20,317
Upper Para .. ..	..	..	..	1,267	63,900	461	2,888	1,976	487,437	5,186
Upper Surinam ..	..	..	..	1,551	67,700	1,729	512	2,120	620,154	5,894
Lower Commewyne ..	8,756	23,980	202,576	12,268	173,000	7,515	12,357	2,469	995,818	3,645
Upper Commewyne ..	..	..	..	518	15,700	74	220	922	65,477	396
Cottica	1,872	660	14,058	2,910	139,300	193	661	6,284	273,150	678
Marowynne .. ..	..	..	..	..	2,100	..	..	22	2,205	39
Total	14,529	24,640	372,570	28,851	726,400	12,015	20,022	36,806	11,640,730	39,890

¹ *Koloniaal Verslag*, 1916. Conversion at the rate of 1,015 kilogrammes to 1 ton, and 100 litres to 22 gallons.

TABLE II.¹—EXPORTS, IMPORTS, AND TOTAL VOLUME
OF TRADE

—	1900.	1901.	1902.	1903.	1904.
	£	£	£	£	£
Exports ..	461,738	447,133	343,060	357,688	307,702
Imports ..	513,884	589,819	515,256	525,469	616,625
Total ..	975,622	1,036,952	858,316	883,157	924,327

—	1905.	1906.	1907.	1908.	1909.
	£	£	£	£	£
Exports ..	369,311	395,797	490,714	502,781	546,622
Imports ..	546,443	522,765	575,300	586,404	601,328
Total ..	915,754	918,562	1,066,014	1,089,185	1,147,950

—	1910.	1911.	1912.	1913.	1914.
	£	£	£	£	£
Exports ..	695,454	766,806	551,661	788,149	539,337
Imports ..	618,725	689,466	624,505	592,785	533,321
Total ..	1,314,179	1,456,272	1,176,166	1,380,934	1,072,658

Annual Averages.

—	1900-04.	1905-09.	1910-14.	Mean.
	£	£	£	£
Exports ..	383,464	461,045	668,281	504,262
Imports ..	552,211	566,448	611,760	576,806
Total ..	935,675	1,027,493	1,280,041	1,081,068

¹ Koloniale Verslagen. Conversion at the rate of 12 fl to £1.

TABLE III.¹—PRINCIPAL ARTICLES OF EXPORT

		Annual Average 1900-04.	Annual Average 1905-09.	Annual Average 1910-14.	Mean 1900-14.	Per- centage.
Sugar,	<i>tons</i>	8,068	8,611	9,906	8,862	
first grade	£	90,772	133,421	177,813	134,002	26·57
Sugar,	<i>tons</i>	908	882	817	869	
second grade	£	7,134	10,072	13,014	10,073	1·96
Balata	<i>lbs.</i>	616,565	857,495	2,040,180	1,171,414	
..	£	47,559	67,736	258,654	124,650	24·71
Cacao	<i>cwt.</i>	45,456	33,041	31,622	36,706	
..	£	134,490	94,522	77,954	102,322	20·29
Gold	<i>ozs.</i>	19,720	35,909	26,264	27,298	
..	£	83,725	127,512	93,951	101,730	20·17
Coffee	<i>cwt.</i>	3,767	2,795	4,215	3,592	
..	£	5,718	6,848	13,935	8,834	1·75
Rum	<i>galls.</i>	163,240	124,982	185,834	158,019	
..	£	9,120	6,155	9,515	8,263	1·64
Plantains	<i>bunches</i> ²	70	173,370	293,179	155,540	
& Bananas	£	2	7,304	10,771	6,026	1·19
Timber	£	3,683	5,429	7,448	5,520	1·09
Hides	£	618	966	1,407	997	·20
Dried Bananas	<i>cwt.</i>	—	363	1,239	534	
..	£	—	352	1,310	554	·19
Rubber	<i>lbs.</i>	—	—	3,631	1,210	
..	£	—	—	716	239	·04
Isinglass	<i>lbs.</i>	2,277	4,409	4,079	3,588	
..	£	129	250	231	203	·04
Other Exports	£	507	478	1,562	849	·16
Total Exports	£	383,464	461,045	668,281	504,262	100·00

¹ *Koloniale Verslagen*. Conversion at the following rates: 12 fl. to £1; 1,015 kilogrammes to 1 ton; 31·1035 grammes to 1 ounce troy; and 100 litres to 22 gallons.

² Also 56 cwt. of bananas in the period 1905-1909.

TABLE IV.¹—PRINCIPAL ARTICLES OF IMPORT

	Average Annual Value, 1900-04.	Average Annual Value, 1905-09.	Average Annual Value, 1910-14.	Mean, 1900-14.	Per- centage.
	£	£	£	£	
Cotton, Linen and Woollen Manufac- tures	79,964	78,993	87,688	82,215	14·25
Flour and Grain ..	44,768	52,749	64,821	54,112	9·38
Meat, Bacon and Tinned Provisions	49,465	50,338	48,231	49,344	8·55
Rice.. ..	36,506	37,626	44,960	39,697	6·89
Machinery and Iron Goods	34,989	36,069	36,769	35,942	6·24
Wine, Spirits and Beer	36,973	35,292	34,664	35,643	6·19
Raw Gold	35,106	23,734	15,497	24,779	4·29
Groceries, &c. ..	21,830	23,471	27,824	24,375	4·22
Haberdashery, Boots and Hats	18,462	22,747	28,403	23,204	4·02
Oils	16,152	17,779	24,125	19,352	3·35
Butter	18,234	17,479	19,520	18,411	3·20
Cement, Paints and Fireproof Roofing	15,351	14,301	15,048	14,900	2·58
Tobacco and Cigars	10,423	10,372	11,105	10,634	1·84
Bullion and Specie	11,275	8,844	11,212	10,444	1·81
Fish	9,951	8,624	7,892	8,822	1·53
Manures and Chemi- cals	8,015	8,326	9,781	8,708	1·51
Live Stock	5,858	7,951	10,772	8,194	1·42
Hides and Leather..	7,399	7,447	9,009	7,952	1·38
Bread, Biscuit, &c...	5,417	7,473	7,657	6,849	1·19
Potatoes	5,028	5,849	6,314	5,730	·99
Timber, &c... ..	5,587	2,964	3,433	3,995	·69
Paper	3,103	3,561	4,643	3,769	·65
Sacks	3,375	3,614	4,179	3,723	·65
Coal and Coke ..	2,639	3,718	4,520	3,626	·63
Earthenware ..	3,213	2,801	2,276	2,763	·48
Other Imports ..	63,128	74,326	71,417	69,623	12·07
Total Imports ..	552,211	566,448	611,760	576,806	100·00

¹ *Koloniale Verslagen.* Conversion at the rate of 12 fl. to £1.

TABLE V.¹—TRADE WITH THE PRINCIPAL COUNTRIES, 1900-1914

	EXPORTS.					IMPORTS.					TOTAL TRADE.	
	Average Annual Value, 1900-04.	Average Annual Value, 1905-09.	Average Annual Value, 1910-14.	Mean.	Percentage.	Average Annual Value, 1900-04.	Average Annual Value, 1905-09.	Average Annual Value, 1910-14.	Mean.	Percentage.	Mean.	Percentage.
Dutch Possessions—	£	£	£	£		£	£	£	£		£	
Holland	137,598	182,333	263,940	194,623	58·35	292,081	336,442	348,629	325,717	56·47	520,340	48·13
Curacao	2,704	2,585	2,607	2,632	·55	1,604	1,336	798	1,246	·22	3,878	·36
United States	183,928	179,203	241,251	201,461	41·00	115,676	128,781	150,593	131,684	22·83	333,145	30·82
British Possessions—												
British Guiana	34,429	63,461	84,782	60,891	11·90	33,986	47,961	73,846	51,931	9·00	112,822	10·44
United Kingdom	15,925	8,417	50,724	25,022	4·45	58,192	17,392	9,393	28,326	4·91	53,348	4·94
Barbados	389	421	493	434	·10	3,084	891	1,400	1,792	·31	2,226	·20
Trinidad	—	159	162	107	—	1,405	713	1,050	1,058	·18	1,165	·11
French Possessions—												
French Guiana	47	24	126	66	—	37,354	26,519	18,322	27,398	4·75	27,464	2·54
France	7,724	24,098	19,919	17,247	3·30	2,418	1,399	1,692	1,836	·32	19,083	1·76
Other Countries	720	344	4,274	1,779	·35	6,411	5,014	6,028	5,818	1·01	7,597	·70
Total	383,464	461,045	668,281	504,262	100·00	552,211	566,448	611,760	576,806	100·00	1,081,068	100·00
Total, Dutch Possessions	140,302	184,918	266,547	197,255	38·90	293,685	337,778	349,427	326,963	56·69	524,218	48·49
„ United States	183,928	179,203	241,251	201,461	41·00	115,676	128,781	150,593	131,684	22·83	333,145	30·82
„ British Possessions	50,743	72,458	136,161	86,454	16·45	96,677	66,957	85,689	83,107	14·40	169,561	15·69
„ French Possessions	7,771	24,122	20,045	17,313	3·30	39,772	27,918	20,014	29,234	5·07	46,547	4·30
„ Other Countries	720	344	4,274	1,779	·35	6,411	5,014	6,028	5,818	1·01	7,597	·70
Total	383,464	461,045	668,281	504,262	100·00	552,211	566,448	611,760	576,806	100·00	1,081,068	100·00

¹ *Koloniale Verslagen*. Conversion at the rate of 12 fl. to £1.

TABLE VI.¹—EXPORTS: COUNTRIES OF DESTINATION

	Average Annual Value, 1900-04.	Average Annual Value, 1905-09.	Average Annual Value, 1910-14.	Mean, 1900-14.	Percentage of Total Export of Commodity.
Holland—	£	£	£	£	
Gold	82,217	108,952	82,120	91,096	89·54
Balata	38,237	57,746	161,472	85,818	68·04
Sugar	6,028	4,205	7,331	5,855	4·06
Cacao	7,126	6,232	3,813	5,724	5·59
Timber	2,387	3,310	3,256	2,984	54·06
Other Exports ..	1,603	1,888	5,948	3,146	—
Total Exports ..	137,598	182,333	263,940	194,623	—
United States—					
Cacao	123,487	80,585	70,491	91,521	89·44
Sugar	53,143	81,662	100,027	78,277	54·38
Balata	1,096	1,788	47,296	16,727	13·42
Coffee	5,147	6,756	11,914	7,939	89·87
Bananas	1	7,285	9,777	5,688	94·39
Other Exports ..	1,054	1,127	1,746	1,309	—
Total Exports..	183,928	179,203	241,251	201,461	—
United Kingdom—					
Sugar	6,511	3,562	21,094	10,389	7·22
Balata	1,019	130	26,031	9,060	7·27
Rum	4,388	312	1,987	2,229	27·00
Cacao	3,014	770	44	1,276	1·24
Other Exports ..	993	3,643	1,568	2,068	—
Total Exports..	15,925	8,417	50,724	25,022	—
British Guiana—					
Sugar	32,111	53,595	62,366	49,357	34·29
Balata	465	6,255	17,130	7,950	6·38
Rum	1,791	3,488	4,901	3,394	41·06
Other Exports ..	62	123	385	190	—
Total Exports..	34,429	63,461	84,782	60,891	—
France—					
Gold	278	14,478	10,558	8,438	8·29
Balata	6,304	1,818	3,516	3,879	3·11
Cacao	1,010	845	3,417	3,757	3·67
Timber	120	846	1,550	839	15·20
Other Exports ..	12	111	878	334	—
Total Exports..	7,724	24,098	19,919	17,247	—

¹ *Koloniale Verslagen*. Conversion at the rate of 12 fl. to £1.

TABLE VII.¹—IMPORTS: COUNTRIES WHENCE SHIPPED

	Average Annual Value, 1900-04.	Average Annual Value, 1905-09.	Average Annual Value, 1910-14.	Mean, 1900-14.	Percentage of Total Import of Commodity.
Holland—	£	£	£	£	
Cottons, Linens and Woollens	41,416	58,620	58,728	52,922	64·37
Rice	35,162	38,094	44,525	39,261	98·89
Wines, Spirits and Beer	33,626	33,296	31,564	32,829	92·10
Machinery and Iron Goods	17,899	18,676	24,331	20,302	56·48
Groceries, &c. ..	16,216	17,132	20,041	17,797	73·01
Butter	16,757	17,040	18,464	17,420	94·13
Haberdashery, Boots and Hats	11,987	15,943	19,256	15,729	67·78
Tinned Provisions	8,019	8,708	9,292	8,673	56·23
Oils	7,665	8,476	8,875	8,339	43·09
Tobacco and Cigars	7,876	7,901	8,987	8,255	77·63
Leather	7,088	6,922	8,188	7,399	93·04
Paints and Varnish	6,917	6,416	6,431	6,588	93·73
Grain	4,523	6,267	6,415	5,735	39·67
Potatoes	4,874	5,774	6,097	5,582	97·42
Chemicals	4,033	3,908	3,668	3,869	67·06
Fireproof Roofing	3,087	3,761	4,152	3,667	78·40
Paper	2,786	3,222	3,957	3,322	88·14
Bread, &c., and Pastry, &c.	2,109	3,361	3,845	3,105	45·33
Earthenware ..	2,929	2,620	2,172	2,574	93·16
Sacks	2,216	2,362	3,105	2,561	68·80
Other Imports ..	54,886	67,943	56,536	59,788	—
Total Imports..	292,081	336,442	348,629	325,717	—
United States—					
Flour and Grain..	29,539	40,374	48,615	39,510	73·01
Meat, Bacon and Tinned Provisions	35,528	38,554	32,409	35,497	71·92
Oils	7,607	8,760	14,050	10,139	52·39
Machinery and Iron Goods	9,768	5,838	6,983	7,530	20·95
Fish	5,294	6,451	7,116	6,287	71·26
Cottons, Linens and Woollens	3,671	5,420	5,679	4,923	5·99
Haberdashery and Boots	2,681	3,856	3,886	3,474	17·77

¹ *Koloniale Verslagen.* Conversion at the rate of 12 fl. to £1.

TABLE VII.¹—continued

	Average Annual Value 1900-04.	Average Annual Value 1905-09.	Average Annual Value 1910-14.	Mean, 1900-14.	Percentage of Total Import of Commodity.
	£	£	£	£	
Bread, &c. ..	2,634	3,404	2,665	2,901	97·65
Timber	4,771	1,761	1,642	2,725	68·21
Tobacco	2,116	2,114	1,939	2,056	33·05
Coal	391	103	2,037	844	23·27
Chemicals ..	469	872	1,125	822	14·25
Other Imports ..	11,207	11,274	22,447	14,976	—
Total Imports..	115,676	128,781	150,593	131,684	—
British Guiana—					
Cottons, Linens and Woollens	5,024	10,895	20,788	12,236	14·88
Flour and Grain..	7,377	5,468	6,860	6,568	12·14
Live Stock ..	1,815	7,755	9,356	6,308	76·99
Machinery and Iron Goods	2,358	4,397	4,627	3,794	10·55
Manures and Chemicals	1,079	1,926	2,784	1,930	22·16
Timber	790	1,199	1,547	1,179	29·50
Other Imports ..	15,543	16,321	27,884	19,916	—
Total Imports..	33,986	47,961	73,846	51,931	—
United Kingdom—					
Cottons, Linens and Woollens	28,846	3,484	1,804	11,378	13·84
Coal	2,146	3,413	2,158	2,572	70·93
Machinery ..	3,076	2,513	497	2,029	9·18
Grain	2,154	1,084	599	1,279	8·85
Other Imports ..	21,970	6,898	4,335	11,068	—
Total Imports..	58,192	17,392	9,393	28,326	—
French Guiana—					
Gold	35,107	23,725	15,486	24,773	100·00
Other Imports ..	2,247	2,794	2,836	2,625	—
Total Imports..	37,354	26,519	18,322	27,398	—

¹ *Koloniale Verslagen.* Conversion at the rate of 12 fl. to £1.

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The final treaty for the settlement of the boundary between French and Dutch Guiana on the Marowynne (Maroni) River was ratified September 16, 1916. It may be found in the Dutch official *Staatsblad* for 1916, Nos. 304, 481.

ECONOMIC

Official and Semi-Official

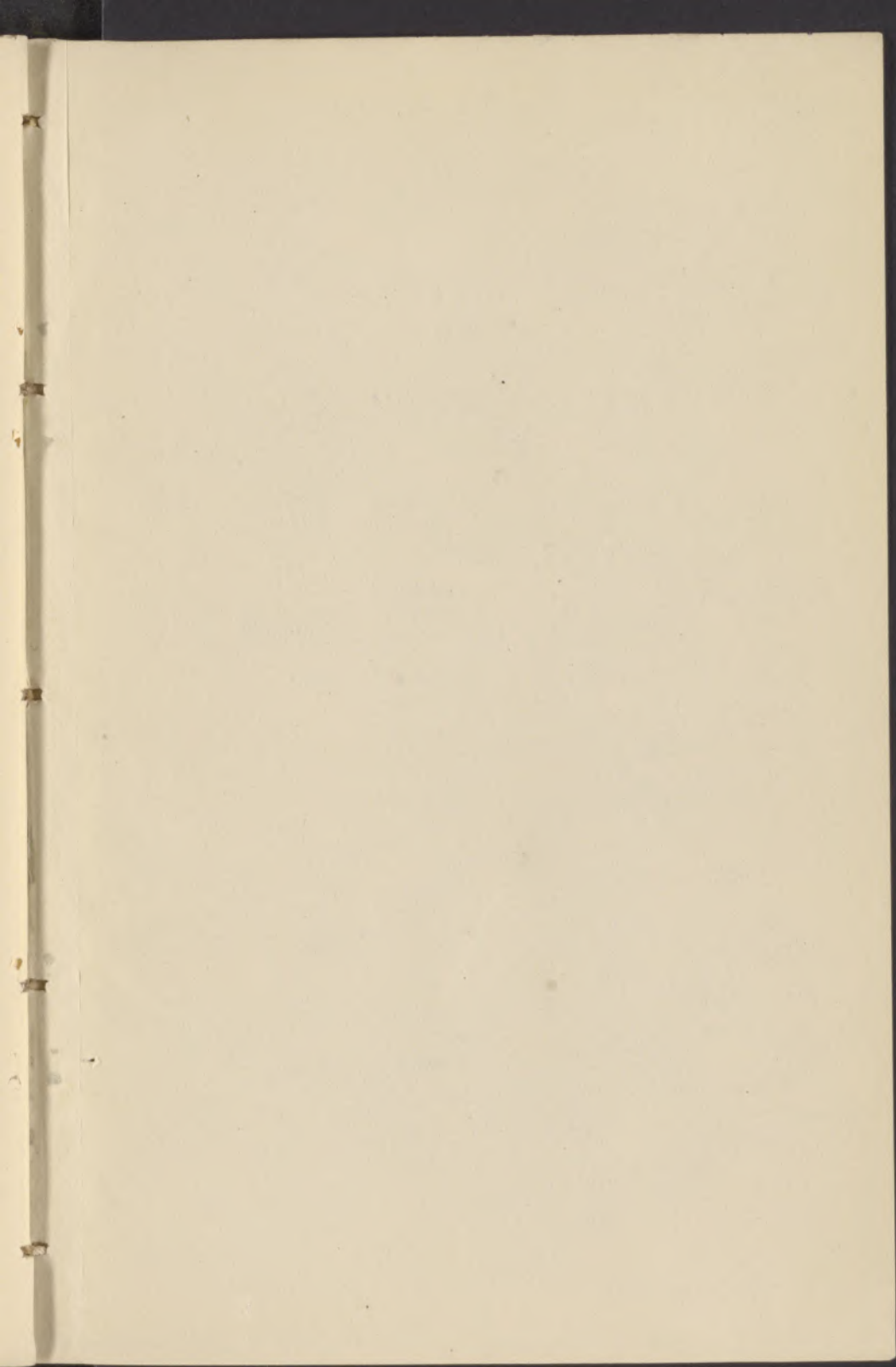
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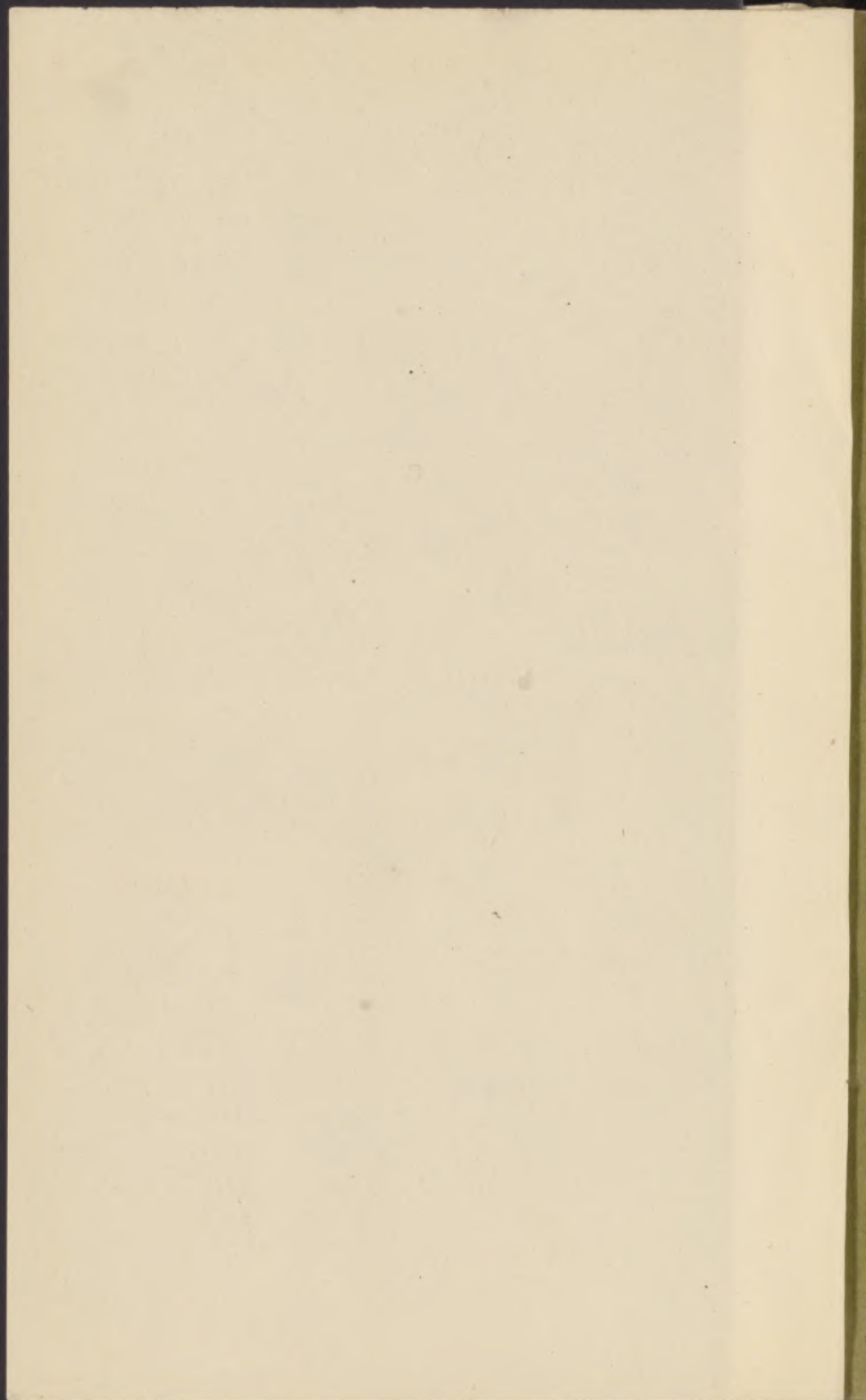
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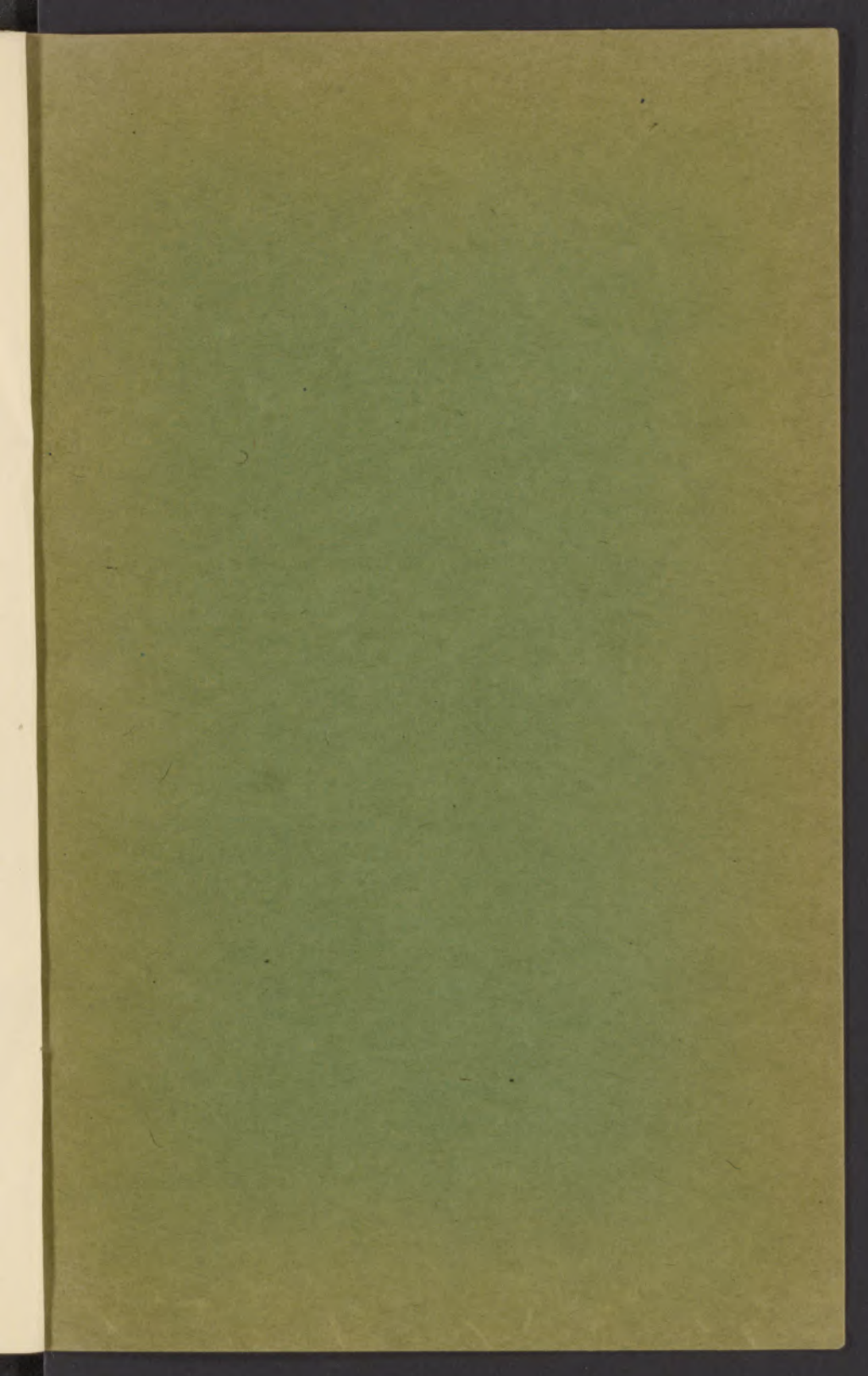
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MAPS

Dutch Guiana is covered by Stanford's map of *Guiana and Venezuela* (London Atlas Series), in one sheet, 83 $\frac{1}{4}$ miles to one inch.







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